STP

NAVY SBIR TRANSITION PROGRAM

Technology Guide

2025-26 Cohort

The information included in this guide is publicly available.

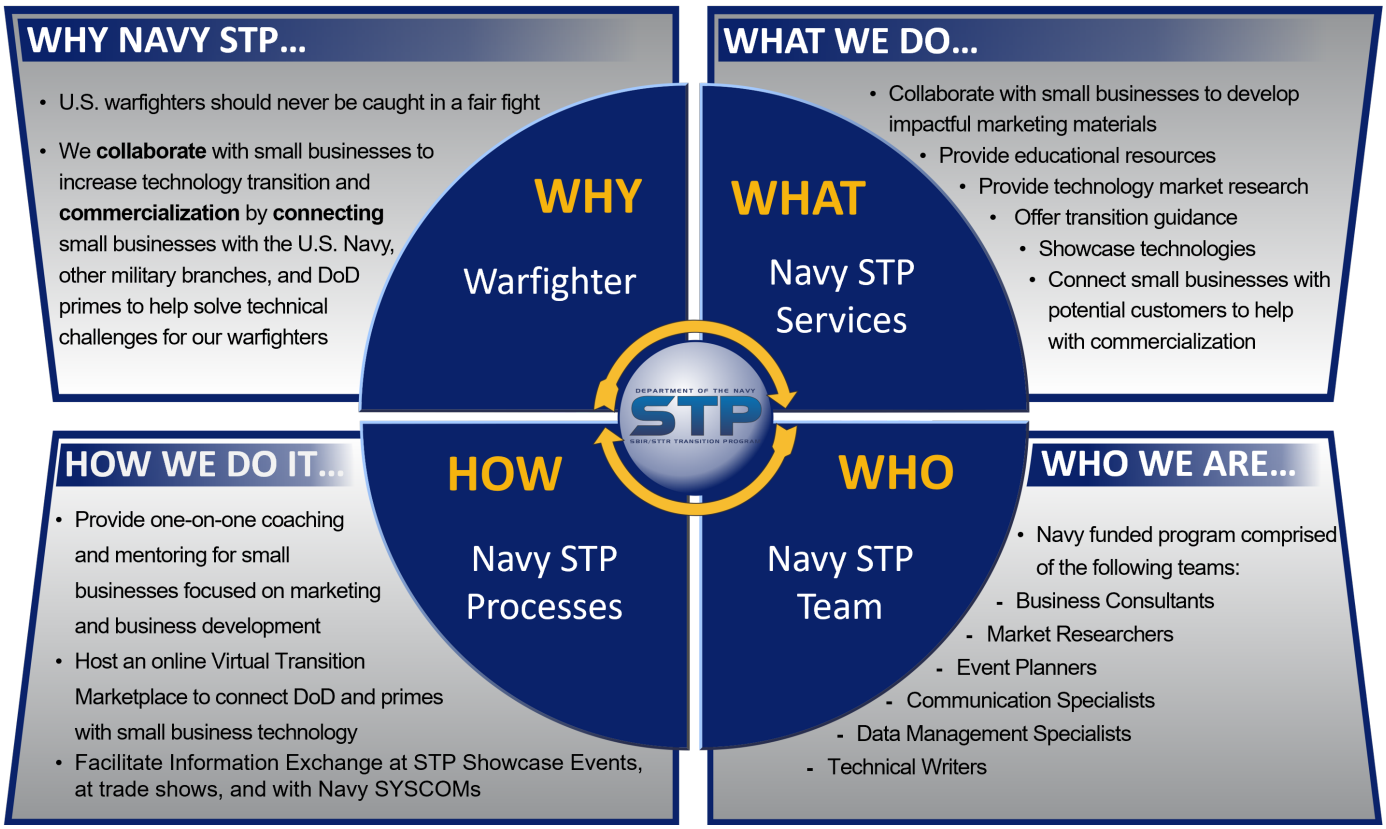
CONTENTS

What are the SBIR/STTR Programs?

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, also known as America's Seed Fund, are among the largest sources of early-stage capital for technology commercialization in the United States. These programs are coordinated by the Small Business Administration (SBA) and are intended to help select small businesses conduct research and development. This funding has three phases and comes in the form of contracts or grants. The recipient projects must have the potential for commercialization and must meet specific U.S. government R&D needs. The Navy has participated since the inception of both programs. The Navy SBIR/STTR programs is run out of the Office of Naval Research.

What is the Navy SBIR/STTR Transition Program?

For over 25 years, the Navy SBIR/STTR Transition Program (Navy STP) has been a vehicle for connecting Navy SBIR/STTR-funded technologies with warfighters, government acquisition and technical personnel, industry prime contractors, system integrators, and other potential partners and collaborators. The program takes a holistic approach to assisting these small businesses to transition their technologies through business mentoring, training, marketing material creation, business development activities, and promotion.



What are the Navy's STP Showcase Events?

The Navy STP Showcase Events promote companies participating in the program. The Showcase Events connect these small businesses with government and industry personnel through in-person promotion, on-demand Tech Talks, one-on-one meetings, and an enhanced online presence via the Navy STP Virtual Transition Marketplace.

Benefits of Utilizing SBIR/STTRs

For the current Navy STP cohort, there will be four Navy STP Showcase Events:

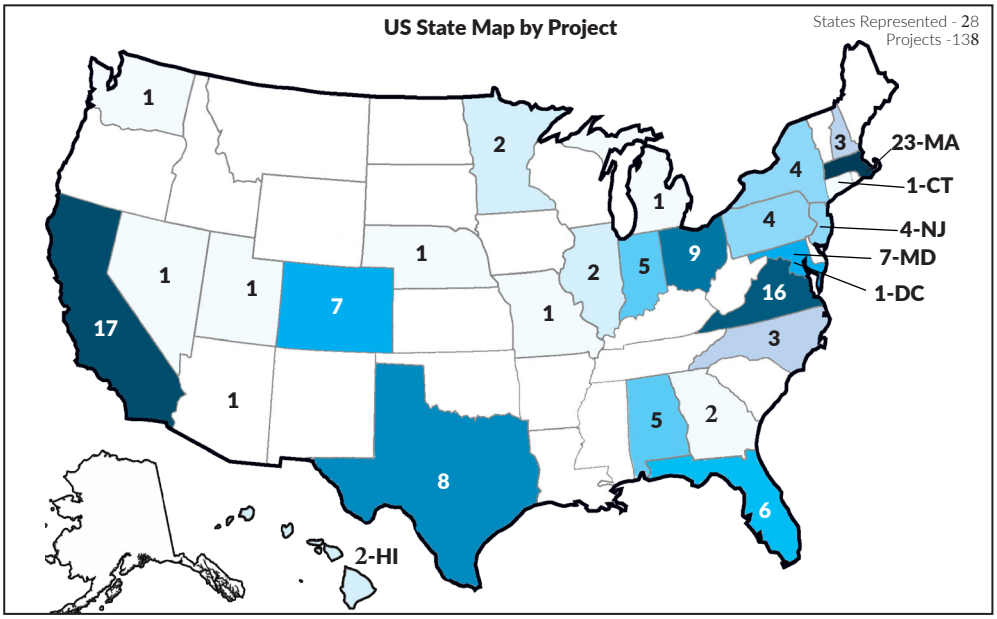
WEST 2026 San Diego, CA *February 10-12, 2026*	**WEST 2026** Visit our showcase booth focusing on Navy STP cohort members with innovative technologies supporting Advanced Electronics, Autonomy, Battlespace Environments, C4I, Electronic Warfare, Ground and Sea Platforms, Human Systems, Materials & Manufacturing Processes, Sensors, Sustainment, and Weapons Technologies. Visit us at booth 1725. Learn more about West 2026 at: https://www.westconference.org
NAVSEA Arlington, VA *March 10-11, 2026*	**SYSCOM Technology Information Exchange Showcase** The SYSCOM Technology Information Exchange will focus on Navy STP cohort members with innovative technologies supporting Advanced Electronics, Air Platforms, Autonomy, Biomedical, C4I, Cyber, Electromagnetic Warfare, Energy & Power Technologies, Engineered Resilient Systems, Ground and Sea Platforms, Human Systems, Materials & Manufacturing Processes, Modeling and Simulation Technology, Sensors, Sustainment, and Weapons Technologies. Contact stpinfo@navystp.com with subject: "STP Syscom Showcase" if you would like to receive notification once registration opens.
STP Virtual April 6 - May 8, 2026	**Navy STP Connect** Navy STP Connect is a virtual platform to allow Navy STP small businesses and government and prime contractors to schedule one-on-one meetings to discuss the SB's technology and potential transition opportunities. Registration by government and prime contractors opens April 6, 2026 and meetings can be scheduled through May 8, 2026. To schedule a one-on-one meeting visit: https://workspace.navystp.com/stpworkspace/customer-enroll
SeaAirSpace National Harbor, MD April 20-22, 2026	**Sea-Air-Space Conference and Exhibition** Visit our showcase booth focusing on Navy STP cohort members with innovative technologies supporting Advanced Electronics, Air Platforms, Autonomy, Biomedical, C4I, Electronic Warfare, Energy & Power Technologies, Ground and Sea Platforms, Human Systems, Materials & Manufacturing Processes, Modeling and Simulation Technology, Sensors, Sustainment, and Weapons Technologies. Visit us at booth 336. Learn more about Sea-Air-Space at: https://seaairspace.org/

In fiscal year 2025, the DoN awarded over one billion dollars in Phase III funding, an impressive return on investment for SBIR/STTR projects. The Phase II projects receiving up to $1.7M for internal research and development contained within this guide were selected and funded by the DoN Systems Commands demonstrating that these emerging technologies are a DoN priority. Leveraging SBIR/STTR projects can be an advantage when communicating with the customer. Being awarded a SBIR/STTR phase II contract shows that the small business is a qualified government contractor with DoD compliant contracting systems and will make an excellent teammate.

Information on the current Navy STP small business cohort follows, starting on page 4, arranged by the technology category to make it easy to choose which small business technologies match your R&D interests and where you can meet them. Contact information is provided for each company.

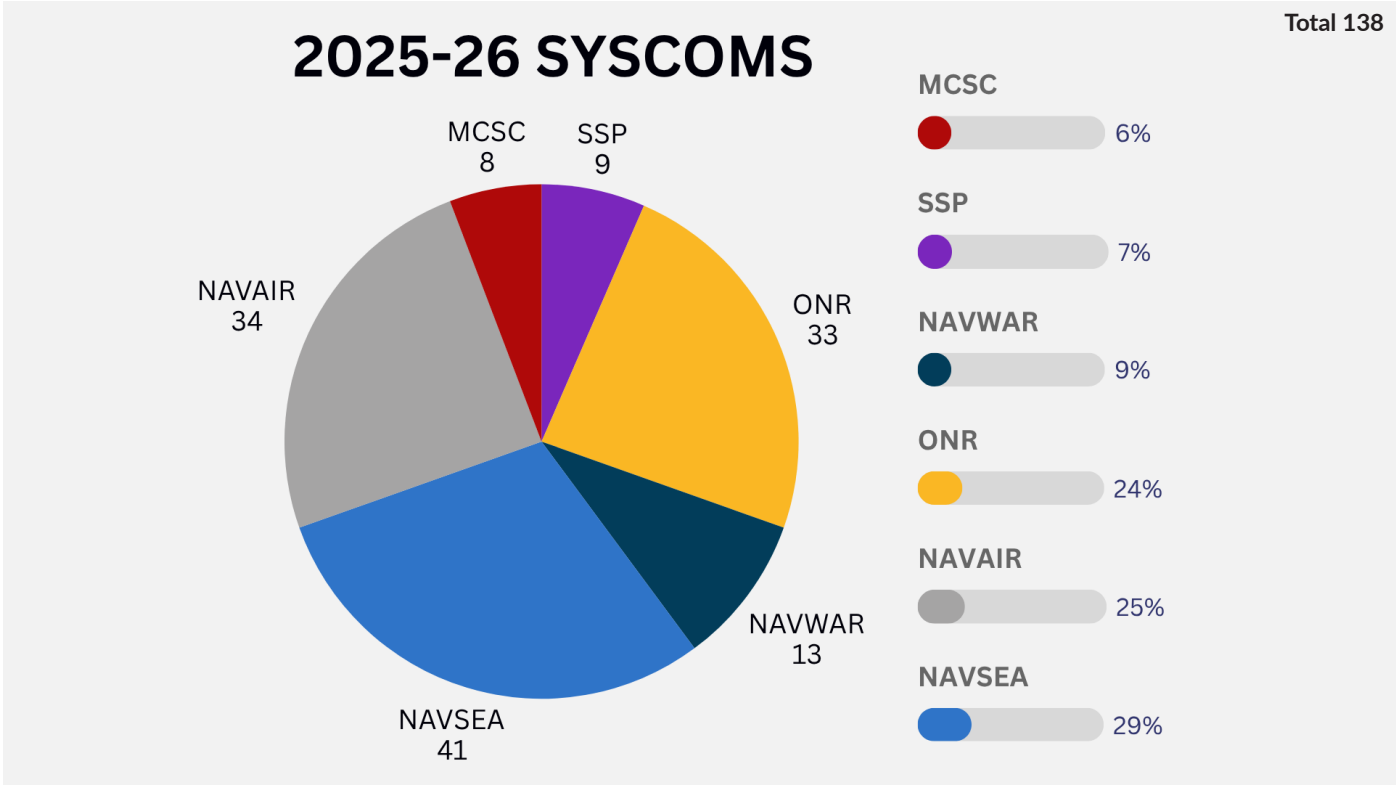
2025-2026 Projects

STATE/ PROJECTS		STATE/ PROJECTS		STATE/ PROJECTS	
AL	5	IN	5	NV	1
AZ	1	MD	7	NY	4
CA	17	MA	23	OH	9
CO	7	MI	1	PA	4
CT	1	MN	2	TX	8
D.C.	1	MO	1	UT	1
FL	6	NC	3	VA	16
GA	2	NE	1	WA	1
HI	2	NH	3		
IL	2	NJ	4		
GRAND TOTAL				28	138



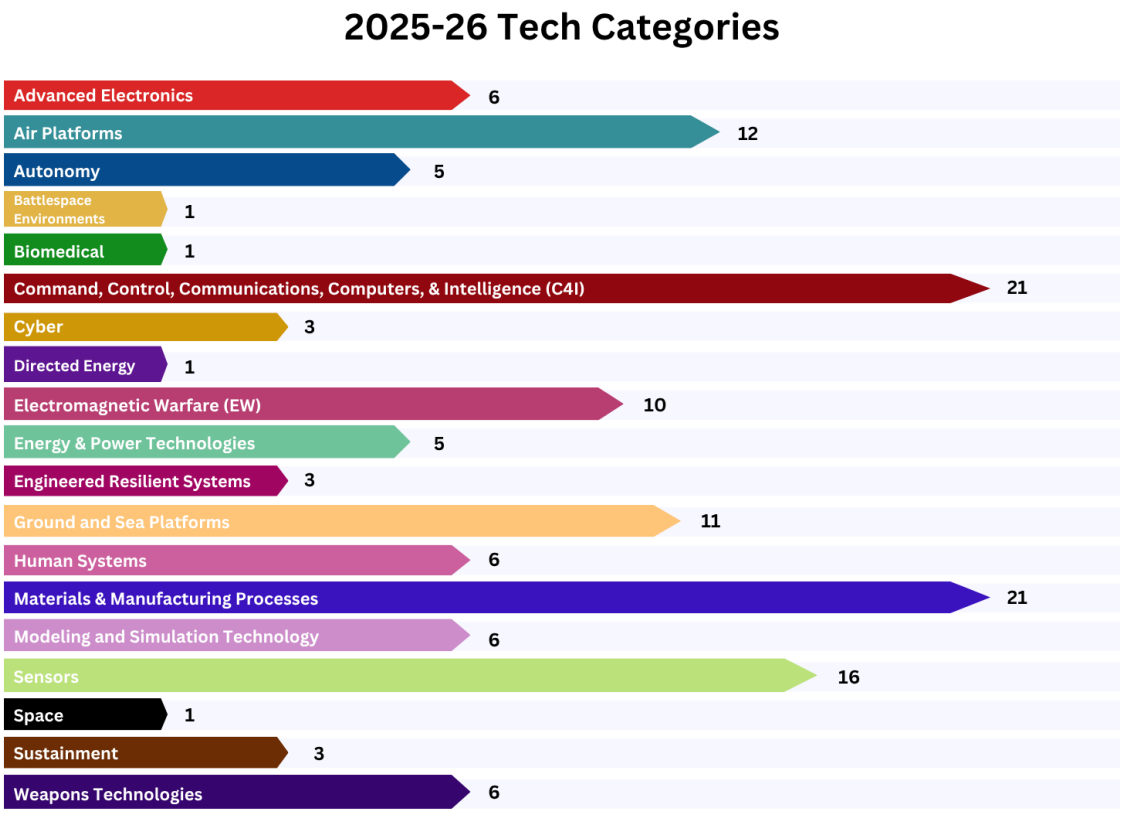
2025-2026 Navy STP Projects by SYSCOM

Total 138



2025-2026 STP Projects by Technology Category

Total 138



ADVANCED ELECTRONICS

Company: Atom Inc /Inglewood, CA
Topic: N171-004
Phase II Proposal Title: Portable, Flexible, External Display and Lighting Screen
SYSCOM: MCSC
Showcase: STP Technical Information Exchange 2026
Abstract: We aim to develop an improved Electronic Paper Technology to provide a laptop accessory, specifically a portable, flexible, external electronic Display Screen to provide a large clear full view of detailed schematics, drawings and pictures contained in technical publications at the point of maintenance. The goal is to provide Collapsible Electronic Paper Display prototypes for bench top and field environment evaluations. To reach this goal, we propose to fabricate flexible and foldable electronically pure semiconducting single-walled carbon nanotube (SWCNT) thin-film transistors (TFTs) driving active matrix organic light-emitting diode (OLED) displays in an 11 inch screen.
POC: POC Kris Smolinski, ksmolinski@atomoe.com
NAICS: Not Provided

Company: Forward Edge-AI, Inc. /San Antonio, TX
Topic: N234-P02
Phase II Proposal Title: A Quantum-Resistant LPD/LPI/AJ Device for UxS Platforms
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: The project aims to develop a Quantum-Resistant LPD/LPI/Anti-Jam (QR-LPD/LPI/AJ) device tailored for unmanned systems (UxS). Key challenges addressed include the susceptibility of UxS to electronic warfare, jamming, and the emerging threats posed by quantum computing. The systems core innovation lies in leveraging a phased array antenna system with AI-augmented beam steering, ensuring LPD and LPI performance, while mitigating electronic jamming threats. Quantum-resistant cryptography is provided to counter potential vulnerabilities. These enhancements reduce the risk of communication interception or jamming, ensuring secure operations of UxS such as UAVs and UUVs.
POC: Huaping Li, atominc.us@gmail.com
NAICS: Not Provided Not Provided

Company: LeWiz Communications Inc. /Sunnyvale, CA
Topic: N221-080
Phase II Proposal Title: Development of a Time-Triggered Ethernet Intellectual Property Block
SYSCOM: SSP
Showcase: SEA AIR SPACE 2026
Abstract: NASA is the leader in applying time-triggered Ethernet (TTE), an SAE AS6802 standard for aerospace applications. TTE network can carry time-critical information and eliminates the requirement of multiple networks on board aircraft. It provides ultra-low latency delivery for critical data and has inherent fault tolerant capabilities. LeWiz is currently developing high speed, multi-port, FPGA based, TTE switching solutions. We propose to use TT Core to develop an ASIC that can be used in TTE endpoint systems and to validate the ASIC and technologies. This will provide a complete TTE solution for deployment in either endpoint or switching applications.
POC: Chinh Le, chinhl@lewiz.com
NAICS: Not Provided

Company: MaXentric Technologies LLC /Fort Lee, NJ
Topic: N23A-T028
Phase II Proposal Title: SWING - SWItches using a Nitrogen polar (N-polar) Gallium nitride (GaN)
SYSCOM: ONR
Showcase: WEST 2026
Abstract: To meet the demands of Broadband, High Power, Low Loss N-polar GaN Radio Frequency (RF) Switches, MaXentric team proposes the SWING (SWItches using a Nitrogen polar (N-polar) Gallium nitride (GaN)) program. The MaXentric team will evaluate device test structures and circuits. The team will then re-design the circuits and expand the design investigations to more complex topologies and co-simulate the packaging with MMIC designs for W-band and 2-18GHz bandwidth applications. The circuits will then be assembled in modules and evaluated.
POC: Isabelle Telliez, itelliez@maxentric.com
NAICS: Not Provided

ADVANCED ELECTRONICS (CONTINUED)

Company: Pendar Technologies, LLC /Cambridge, MA
Topic: N201-058
Phase II Proposal Title: Affordable and Efficient High-Power Long Wavelength Infrared Quantum Cascade Lasers
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: Pendar Technologies proposes to develop the next generation of compact, high power long-wave infrared (LWIR) quantum cascade laser (QCL) sources with output power and wall-plug efficiency exceeding 4 Watts and 16 percent respectively. New low-loss waveguides and band structure improving the performance of the laser emitters over the state-of-the-art will be implemented. Production methods and QCL designs that enables the efficient manufacturing of our optical source with high yield, batch-to-batch repeatability and low-cost, wafer-scale testing will be developed. The goal is to demonstrate that LWIR high power QCLs can have better overall performance and be more affordable.
POC: Laurent Diehl, diehl@pendar.tech
NAICS: Not Provided

Company: SNOChip Inc. /Plainsboro, NJ
Topic: N23A-T008
Phase II Proposal Title: Discrete Axial Symmetry Accelerated Inverse Design for LWIR Large-diameter Metalenses
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Designing large-diameter metalenses for the long-wave infrared (LWIR) range is challenging due to high computational resources. We propose a scalable 3D Finite-Difference Time-Domain (FDTD) inverse design strategy that exploits axial symmetry, enabling the development of large-aperture metalenses. This approach features axial symmetry with radially and azimuthally fractured domain decomposition schemes, facilitating optimizations of large-area, freeform, broadband dispersion-engineered metalenses. We aim to reduce computational costs and unlock new design possibilities for LWIR metalenses. GPU and MPI accelerations as well as a graphic user interface of our FDTD code will be implemented.
POC: Qing Wang, qingwang@snochip.com
NAICS: NAICS 334413

AIR PLATFORMS

Company: Candent Technologies Incorporated /Greenfield, IN
Topic: N22A-T002
Phase II Proposal Title: Multifunctional Heat Exchanger for Aerodynamic Aircraft Inlets
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Candent Technologies is advancing development of a light weight, robust state of the art aircraft aerodynamic engine inlet heat exchanger system, capable of dissipating large amounts of waste heat produced by various aircraft systems. The design will be optimized to minimize pressure losses and flow distortion, to maximize heat exchanger effectiveness, and to improve other aircraft engine inlet characteristics, particularly in serpentine duct inlets. Fabrication and testing of prototype hardware will be used to validate and confirm the aerodynamic and thermal characteristics and performance of the heat exchanger system.
POC: Emanuel Papandreas, mannyp@candent-technologies.com
NAICS: 336412, 33361

AIR PLATFORMS (CONTINUED)

Company: CFD Research Corporation /Huntsville, AL

Topic: N232-084

Phase II Proposal Title: Reduced-Order Modeling of Unstart in Liquid Fuel Scramjets

SYSCOM: NAVAIR

Showcase: SEA AIR SPACE 2026

Abstract: This project will develop a reduced-order modelling (ROM) approach that accurately predicts unstart in both gas- and liquid-fueled scramjet engines over a broad range of flight conditions, and that can be directly inserted into analysis workflows. A secondary objective is to ensure the simulations are of the highest accuracy feasible. Our ROMs demonstrated the ability to capture the transient unstart process including detailed chemistry, axially varying cross-sectional area, shock-capturing, and variable boundary conditions. A demonstration wherein a complete aerodynamic model of a representative air-breathing hypersonic vehicle will be generated and tested within a simulation framework.

POC: Tim Dawson, tim.dawson@cfd-research.com

NAICS: 54171

Company: Continental Controls and Design, Inc. /Huntington Beach, CA

Topic: N171-028

Phase II Proposal Title: Lightweight Self-Start System Demonstration for T56 Engine Driven Aircraft

SYSCOM: NAVAIR

Showcase: SEA AIR SPACE 2026

Abstract: We propose to design, build and demonstrate an updated PMDC based electric starting system for both engines of an E2-D turbine powered aircraft. The operating voltage will be adjusted to receive power from either 115VAC three phase or 270 volt DC sources. The net weight of the electrical system should be very close to the pneumatic one, depending on the Navy battery pack selected. Private Sector Commercial Potential: A small lightweight aircraft starter system has potential commercial/dual-use in applications in the civilian aviation industry. Any system that minimizes weight and size will provide the aviation industry with options for reducing weight in current or future aircraft.

POC: James Hynes, jim.hynes@continentalctrls.com

NAICS: 541710

Company: Creare LLC /Hanover, NH

Topic: N131-005

Phase II Proposal Title: Ultrasound Communications Systems for the Flight Deck

SYSCOM: NAVAIR

Showcase: STP Technical Information Exchange 2026

Abstract: On the flight deck of an aircraft carrier, the noise level makes face-to-face voice communication especially challenging, if not impossible. Most of the deck crew must function without radios, relying instead on non-verbal comms (like hand signals) or attempting to shout over the noise or through their hearing protection. Additionally, some operations require elevated EMCON postures. A voice communication system that can cut through the noise of the flight deck while remaining EMCON compatible is needed. Creare has been developing U-Comm technology to meet the need for a non-radio voice communication system that conveys a persons voice using ultrasonic sound waves instead of radio.

POC: Jed Wilbur, jcw@creare.com

NAICS: 541715, 541330

AIR PLATFORMS (CONTINUED)

Company: Creare LLC /Hanover, NH
Topic: N23A-T016
Phase II Proposal Title: Lightweight Turbogenerator for VTOL UAV
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026

Abstract: The Navy operates VTOL UAS from ships to provide a Beyond Line-Of-Sight (BLOS) Intelligence, Surveillance and Reconnaissance (ISR) capability. Helicopters require propulsion systems that meet the takeoff hover power demand and are inefficient during horizontal flight. VTOL UAS that can takeoff vertically, then transition to horizontal flight like a fixed-wing aircraft, has the potential to be more efficient than a helicopter. This program seeks to develop a novel lightweight turbogenerator for future Navy VTOL UASs. Our baseline design meets the Navy's requirements for SFC (2 hp/lb), VTOL and marine compatibility. We will develop and test a fully integrated turbogenerator.

POC: Darin Knaus, dak@creare.com
NAICS: Not Provided

Company: DARE Venture Group /Las Vegas, NV
Topic: N222-114
Phase II Proposal Title: Project Fins
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026

Abstract: Dare Venture Group will develop methods to produce accurate riblet profiles in outer mold line (OML) surfaces that yield significant drag savings, fuel cost savings and extended range for USN aircraft. This project includes encompassing the applied research of requirements in terms of design, manufacturing, testing, resiliency and projected outcomes of a solution for riblets into a prototype demonstration. We will demonstrate patch testing (for durability) and live-flight demonstration as a task in order to prove not only the benefit of riblet technology application, but also the method of integration to seamlessly include riblet technology into current operations for fleet-wide benefit.

POC: Emma Przybyslawski, emma@dareventuregroup.com
NAICS: Not Provided

Company: DeepFlow LLC /Oviedo, FL
Topic: N232-084
Phase II Proposal Title: Advanced Turbulent Combustion Model for Scramjet Unstart Predictions
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026

Abstract: Accurate and efficient simulation of unsteady reacting flow phenomena within liquid fuel burning hypersonic engines is a challenging simulation task. Reduced order models are typically adopted with simplifying assumptions to a point where the desired phenomena cannot be accurately predicted. DeepFlow developed a solution for the deployment of high-fidelity combustion modelling capabilities enabling fast and accurate simulation of hypersonic engine combustor stability regimes. To achieve this the Conditional Moment Closure (CMC) turbulent combustion model has been reformulated. We plans to develop a software plugin for commercial CFD software.

POC: Carlos Velez, : carlos.velez@deepflowusa.com
NAICS: Not Provided

Company: Dragonfly Pictures, Inc. /Essington, PA
Topic: AF131-132
Phase II Proposal Title: Real-Time Sensor Data Processing and Compression On-board Unmanned Multirotor Aerial Relay
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026

Abstract: The Unmanned Multirotor Aerial Relay (UMAR) is a tethered multirotor that lifts maritime communication radios to 500 feet in altitude. UMAR has proved range extension to 3X+ the traditional means. The tether acts as an extension cord to the ship to provide continuous power, communication, command, and control to the Unmanned Aerial System. UMAR has a basic feature set to fly completely autonomously and does not need continuous operator input. The focus of this research effort is to increase autonomy, functionality, and reliability through testing. Finally, the system may be tested on a US Navy ship, such as the Littoral Combat Ship.

POC: Joseph Pawelczyk, josephpawelczyk@dragonflypictures.com
NAICS: 334511, 532411, 488190, 336411

AIR PLATFORMS (CONTINUED)

Company: Maher & Associates LLC /Forest Hill, MD
Topic: N221-067
Phase II Proposal Title: Pi2Enhanced Reliability and Confidence Effort- 2 (PiERCE 2)
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: The aerospace industry uses pi joints as an assembly technique for primary structures to reduce weight and costs. The pi-joint is a woven preform co-bonded between a skin and a stringer. While these joints are inherently weight-effective for highly loaded structural applications, the structures are susceptible to process-related variations and nonconformance issues, including variable porosity and thickness variations. Maher Advanced Manufacturing has developed a process to improve the reliability of the pi-Joint through processing techniques and a new carbon fiber format and continues to mature this technology as well as demonstrate utility in sub-scale component demonstrations.
POC: Mike Maher, mike@maher-associates.com
NAICS: Not Provided

Company: Sealandaire Technologies, Inc. /Jackson, MI
Topic: N221-023
Phase II Proposal Title: Miniaturized High Data Rate Sonobuoy Tether
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: SeaLandAire (SLA) will develop a strengthened, full-duplex communications datalink between the surface unit of a sonobuoy and its suspended payload. SLA will develop, build, and test prototype tethers. We will design a fiber optic based tether which will act as a strength member to support the suspended payload and as a high data rate communication pathway between the payload and the upper unit of the sonobuoy, and develop innovations with respect to existing challenges in buoy operational life / mean time between failure. We will work with the manufacturer to develop and revise the materials and their fabrication processes to produce prototypes toward a low cost product.
POC: Stephen Smith, ssmith@sealandaire.com
NAICS: Not Provided

Company: TGV Rockets Inc. /Washington, DC
Topic: N231-069
Phase II Proposal Title: Low Cost Flatpack Aircraft with Ultrasonic Additive Manufacturing
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: We demonstrated a versatile aircraft that seamlessly scales from micro-UAV to medium altitude long endurance vehicles. Leveraging production proven 3D printing techniques, the team reduced weight by 24.8%, reduced assembly time by 80%, and increased payload by 8.86 lb or 45%. Our aircraft components enable dense packaging. We imagine rapidly assembling these aircraft in large quantities to launch overwhelming attacks. We can store a squadron in a CONEX box and assemble in the field. The team will refine the design and manufacturing steps into a high-performance, lightweight, and mass-producible production model. We will have a Group I or Group II prototype at the end.
POC: Justin Beeler, justin@tgv-rockets.com
NAICS: 336413, 541370, 541710

Company: Wolf Technical Services, Inc. /Fishers, IN
Topic: N231-017
Phase II Proposal Title: Mechanical Solution to Enable Individual Blade Control for Rotorcraft
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Traditionally, rotorcraft blade control is accomplished through a swashplate mechanism. The swashplate mechanism does not allow for independent control of rotor blades. Research has shown that Individual Blade Control (IBC), offer advantages over conventional swashplate-based control. Previous implementations have required the use of slipring mechanisms which add to system complexity and reduce system reliability. Wolf's IBC mechanism utilizes actuators in the stationary frame, like traditional helicopters. This mechanism is designed to reliably transfer motion from the stationary frame actuators to the blades in the rotary frame through proven power transmission mechanisms.
POC: Aaron Tolly, atolly@wolftechnical.com
NAICS: 336413, 541712, 339112, 541330

AUTONOMY

Company: Archarithms, Inc. /Huntsville, AL
Topic: N231-037
Phase II Proposal Title: Gun Weapons Systems Synthetic Unmanned Aerial Systems Imagery Data Set
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026

Abstract: This project will produce a synthetic imagery dataset of UAS using ML for computer vision discriminator applications. Counter-UAS results in successful negation of UAS threats by USN effectors which requires the ability to detect, identify, discriminate, and engage. To increase the automation of surface sensors ability to detect, identify, and discriminate UAS, large data sets of image and video data must be collected. An automated visual synthetic data generation using ML to develop these large data sets would be advantageous. Our solution provides data as seen at a nose-on view, top-down aerial view, and broad side view and will demonstrate realism of the dataset.

POC: Randy Riley, randy.riley@arcarithm.com
NAICS: 541712, 541330

Company: Beacon Interactive Systems /Waltham, MA
Topic: N192-124
Phase II Proposal Title: Expeditionary Digital Support Platform for Unmanned Underwater Vehicles
SYSCOM: NAVSEA
Showcase: WEST 2026

Abstract: The project is focused on designing and developing an expeditionary digital analytical platform for operations and sustainment at the edge for small class Unmanned Underwater Vehicles (UUV) and future applicability for other platforms. It will result in a web-based platform providing worldwide capability through a single source with near real-time access to configuration management, operations, logging, maintenance, and logistics as a virtual Field Service Representative (FSR). Beyond localized repair and maintenance, any field station will capture, aggregate, and use operational and sustainment data for CBM+ decision making to support mission completion.

POC: Maria Sadlocha. maria.sadlocha@beaconinteractive.com
NAICS: 541330, 541712, 541614, 541511

Company: Knexus Research LLC /Vienna, VA
Topic: N181-079
Phase II Proposal Title: Augmenting CILEMP to Enable Fleet Autonomy with Generative AI
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026

Abstract: AI operational planning tools use hand crafted planning models, which are expensive to develop and maintain. We addressed this with CILEMP, Continuous Interactive Learners for Misson Planning, which demonstrated the ability to learn planning models from synthetically generated data. We identified the need for learning planning models from unstructured sources. We propose to extend CILEMP with FLAG (CILEMP-FLAG), Fleet Autonomy with Generative AI. We will investigate a distributed architecture for multiple autonomous agents that decide, plan, and act using decision transformers and LLMs. We will address the performance limitations of LLMs in planning.

POC: Michael Floyd, michael.floyd@knexusresearch.com
NAICS: 547120, 541712, 541512

Company: SciX3, LLC /Alexandria, VA
Topic: N244-D04
Phase II Proposal Title: Next-generation Autonomy for Unmanned Maritime Vehicles (UMVs)
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026

Abstract: This project is a significant leap forward in maritime autonomy, harnessing the sophisticated simulation environment provided by VxSIM. At the heart of this initiative lies the AI-Routes framework, a novel approach to enhancing the pathfinding capabilities of Unmanned Maritime Vehicles (UMVs). By integrating state-of-the-art modeling and simulation tools with advanced AI algorithms, this project aims to refine the development, assessment, and deployment strategies for autonomy systems. Central to our approach is the use of AI-Routes to teach UMVs how to navigate maritime scenarios. The project emphasizes Explainable AI, allowing for greater interpretability of the decision-making processes.

POC: Renato de Azevedo, rdeazevedo@cslabs.tech
NAICS: Not Provided

AUTONOMY *(continued)*

Company: ViVUM Computing Inc. /Bloomington, IN
Topic: N244-D04
Phase II Proposal Title: Dynamic Neural UMVs - Enhanced Autonomy for the U.S. Navy
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: Vivum Computing is spearheading innovation in neuromorphic computing and autonomous systems. This initiative aims to overcome the limitations of conventional AI and remotely operated vehicles by leveraging the symbiotic capabilities of CTRNNs and FPGAs. Our approach promises transformative improvements in UMV operations, addressing the challenges faced in maritime environments. Objectives: Develop advanced CTRNN-based autonomy software integrated with FPGA technology, Demonstrate the technology's operational effectiveness, Validate the technology's scalability, and compliance with safety and regulatory standards, Ensure the transition to acquisition and full-scale deployment.
POC: Derek Whitley, derek@vivum.ai
NAICS: 541715

BATTLESPACE ENVIRONMENT

Company: ARiA /Madison, VA
Topic: N221-025
Phase II Proposal Title: Advanced Technologies for Automated Replay and Reconstruction of Theater Undersea Warfare Mission Data
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: ARiA will develop Record, Replay, Reconstruct & Analyze - Automated & Extensible (RAX), a recording, replay, reconstruction, and analysis capability for the AN/UYQ-100 USW-DSS. The current system cannot collect and store TUSW Mission Data in support of replay and reconstruction & analysis (R&A). As a result watchteams are limited in the ability to analyze and make more informed operational decisions about operations and develop long-term situational awareness and pattern a target of interest (TOI). Additionally, automated TUSW Mission Data collection, storage and management techniques, and architecture are needed to R&A can be performed within the timelines needed to influence operations.
POC: Jason Summers, jason.e.summers@ariacoustics.com
NAICS: 541720, 541690, 541712, 541511

BIOMEDICAL

Company: Arcascope /Arlington, VA
Topic: PA20-265
Phase II Proposal Title: Continuous, Best-in-Class Open Source Sleep Classification with Extreme Runtimes
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: Arcascope addresses the challenge of assessing fatigue risk in shipboard environments. We will adapt our algorithms into an even more lightweight form that can run on Apple Watch and Android Wear. We further propose to integrate our algorithms with an existing family of wearables, currently in use by the Navy. By integrating the device's low-energy design and advanced energy harvesting technologies with algorithms for sleep, we will seamlessly and simultaneously address the Navy's need for reliable algorithms and extreme long runtime devices. This work will significantly enhance military readiness by providing continuous sleep monitoring and fatigue assessment.
POC: Olivia Walch, olivia@arcascope.com
NAICS: 541511

COMMAND CONTROL COMMUNICATIONS COMPUTERS & INTELLIGENCE *(C4I)*

Company: Apothym Technologies Group /Peachtree Corners, GA
Topic: N232-110
Phase II Proposal Title: Multidirectional, Multifrequency Ship-based Meteorological Satellite Receiver Using a Virtual Gimbal
SYSCOM: ONR
Showcase: WEST 2026
Abstract: This project will design and develop a prototype lens that can operate up to 8400MHz using an innovative multi-band feed design. We will explore promising directions on GRIN lens design. ATGs antenna technology offers a unique capability over traditional and ESA antennas in that it provides multi-beam, multi-band capability at lower power and a comparable price per beam. DOD is looking to leverage next generation LEO/MEO satellite networks and procuring equipment that can reduce equipment at the tactical level. This GRIN lens concept could potentially increase performance at low look angles with the potential to operate below the horizon which would be advantageous for any mobile platform.
POC: Ken Quock, kquock@atg.space
NAICS: Not Provided

Company: Beacon Interactive Systems /Waltham, MA
Topic: N192-124
Phase II Proposal Title: Operational Ship Data for CBM+ Analytics for Bridge-Based Decision Support
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: The goal of this project is to leverage shipboard digital assets including data from operations and maintenance to increase mission readiness across ship and Battle Group. The starting point of the effort is to provide Operational Condition Based Maintenance Plus (CBM+) for single ships as well as across a connected Battle Group. With the advancement of digital capabilities and the flow of data from machinery, it is possible to utilize the information that determines equipment failure with a near real-time understanding of the impact of failure based on the mission. This project explores those aspects of mission readiness and performance with operational insight to act upon.
POC: Maria Sadlocha, maria.sadlocha@beaconinteractive.com
NAICS: 541330, 541712, 541614, 541511

Company: Colvin Run Networks, Inc. /Tysons, VA
Topic: X224-OCSO1
Phase II Proposal Title: IRONCLAD: Integrated Resilient Operations for Naval Cloud and AI Deployments
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: IRONCLAD: Integrated Resilient Operations for Naval Cloud and AI Deployments, The initiative develops and deploys prototypes of a cutting-edge multi-cloud MLOps (Machine Learning Operations) platform. This project will integrate advanced AI and machine learning capabilities into a secure and scalable multi-cloud environment. The primary objectives include establishing a multi-cloud architecture, implementing secure cloud foundations, and deploying three initial use cases: Drone Identification Vision Model, Translation Model for Coalition Communications, and Anomaly Detection Model.
POC: Bruce Olson, Bruce@colvinrun.com
NAICS: Not Provided

Company: Dirac Solutions Inc. /Pleasanton, CA
Topic: N241-D02
Phase II Proposal Title: Secure UWB Communications for Aircrew Physiological Monitoring
SYSCOM: NAVAIR
Showcase: WEST 2026
Abstract: DSI proposes an aircrew portal wearable medical sensor system, incorporating sensors for physiological monitoring, integrated with secure wireless communications links. To utilize the potential of PhysMon sensor data in mitigating PEs, we propose a secure body area network integrated with a secure ultra-wideband (UWB) long-range link. This network will transmit collected data securely to base medical analysis and intervention. Innovations include ensuring wireless reliability, meeting Size, Weight, and Power (SWaP) requirements, and optimizing battery lifespan. In Phase II, DSI plans to design, develop, and demonstrate the proposed FCC-approved low-power body area network with UWB links.
POC: Faranak Nekoogar, faranak@diracsolutions.com
NAICS: Not Provided

C4I *(continued)*

Company: Dirac Solutions Inc. /Pleasanton, CA
Topic: NSF11-561
Phase II Proposal Title: Software-Defined Noise Cancellation for Wireless Pulse Based Communications
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: DSI has addressed modulated pulse-based RF communications over a software-defined-radio (SDR) platform for improving the reliability of RF communications. Communications near an aircraft while employing wireless handsets for helicopter operations encounter audio interference. Rotor noise hinders communication devices in picking up human speech. Also, the vibration from rotors and other components can cause microphones to pick up extraneous noise. The background noise through a wireless system makes communication challenging and leads to mistakes. DSI will develop high performance active noise and echo cancellation capabilities integrated with wireless communications systems.
POC: Faranak Nekoogar, faranak@diracsolutions.com
NAICS: Not Provided

Company: Etegent Technologies, LTD /Blue Ash, OH
Topic: N221-036
Phase II Proposal Title: Exploitation of Ephemeral Features in Sonar Classification Algorithms
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: For active and passive sonar, improvements can be provided in robust classification in challenging operating environments where targets may only exist for fleeting moments or where targets may intentionally take deceptive and evasive measures that limit detection. Etegent Technologies Ltd. will continue to develop and mature an ephemeral feature technology that provides a robust classification system for missing and ephemeral contact features. The proposed framework leverages a combination of Bayesian and machine learning methods to optimally exploit physical and virtual information sources while maintaining robustness to limited contact information from fleeting and deceptive targets.
POC: Arnab Shaw, rnab.shaw@etegent.com
NAICS: Not Provided

Company: Galois, Inc. /Portland, OR
Topic: N211-083
Phase II Proposal Title: 5STARS Boost: Refining 5STARS Network Verification Technology for Transition
SYSCOM: ONR
Showcase: WEST 2026
Abstract: In the project we aim to leverage deep network verification technologies that have attractive properties that has led to their adoption in commercial cloud datacenters, namely that they are: (1) fully automated, (2) passive, (3) proactive, and (4) exhaustive. These technologies can be deployed non-invasively in a range of operating scenarios. We aim to close the remaining gaps that have proved obstacles to transition and establish a close and collaborative transition customer relationship. We will create a baseline demonstration platform for 5STARS by integrating with open source SDN, network simulation and CI/CD platforms.
POC: Cole Schlesinger, coles@galois.com
NAICS: 541519, 541511, 541512, 541690

Company: GIRD Systems, Inc. /Cincinnati, OH
Topic: N211-080
Phase II Proposal Title: Domain Optimized Tactical Line of Sight Communications
SYSCOM: NAVWAR
Showcase: SEA AIR SPACE 2026
Abstract: GIRD Systems proposes to demonstrate the Wireless Intelligent Service for Automatic Radio Domain optimization (WISARD). WISARD is a machine learning (ML) software solution for communication system domain optimization that improves performance across operational domains while reducing the degree of required radio operator intervention. WISARDs understanding of the mission, operating domain, and current conditions (from metrics and I/Q samples) influences the automated control, selection, and reconfiguration of the platform and waveform. Initially targeted to the MIDS JTRS platform. The project improves the performance and ease of use of Line-of-Sight (LOS) L-band communication systems.
POC: James Caffery, Jr., jcaffery@girdsystems.com
NAICS: 541690, 541511, 541712, 541330

C4I *(continued)*

Company: Machina Cognita Technologies, Inc /Carlsbad, CA
Topic: N201-077
Phase II Proposal Title: State-based Machine Aided Real Time Strategy (SMARTS)
SYSCOM: ONR
Showcase: WEST 2026
Abstract: Military operations require fast and accurate decision making to accomplish missions. Advancements in Artificial Intelligence (AI) are enabling computers to accomplish tasks under similar conditions. The lack of transparency and explainability of AI systems has made it unfeasible for decision makers to put lives at risk based on black-box algorithms. MCT is developing the State-based Machine Aided Real Time Strategy (SMARTS) system and the SMARTS Translation Engine. The SMARTS engine provides users with the ability to analyze an array of actions and the associated risks. The SMARTS Translation Engine allows autonomous systems and humans to communicate without modifying existing procedures.
POC: Jonathan Day, jonathan.day@machinacognita.com
NAICS: Not Provided

Company: Monterey Technologies, Inc. /Park City, UT
Topic: N161-015
Phase II Proposal Title: Collaborative Undersea Warfare Decision Application (CUDA)
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: The goal of the Collaborative Undersea Warfare Decision Application (CUDA) is to develop a central planning application and support services framework to improve situational awareness and accelerate accurate decision making. MTI will develop a prototype system that extends the Rapid Environmental Parameter Optimization Management (REPOMan) algorithm to CUDA capabilities to produce a grid field of areas to facilitate TDAs. MTI will code the Area Search Effectiveness Calculator (ASEC) to provide TDAs for assessing search effectiveness. MTI will extend the capabilities of Data Normalization and Distribution (DND) to efficiently integrate GIS data from multiple sources.
POC: Todd Cloutier, tcloutier@mti-inc.com
NAICS: 541720, 541712, 541380, 541330

Company: Onebrief, Inc. /Honolulu, HI
Topic: AF221-DCSO1
Phase II Proposal Title: Rapid Operational Planning
SYSCOM: NAVWAR
Showcase: STP Technical Information Exchange 2026
Abstract: Onebrief provides faster, better command decisions at large headquarters. Onebrief accelerates the creation of major OPLANs and CONPLANs. We modify Onebrief to support tactical level planning. We will provide new functionality to adapt Onebrief to Navy needs, investigate integration options, and conduct a test to evaluate the tool. Today, almost all planning is done in Word and PowerPoint. This leaves important data in an unstructured, unusable format, and results in decisions that are too slow. Onebrief breaks plans into thousands of reusable cards that are reused across the entire enterprise to auto-update planners common outputs, including slides, written orders, maps, and sync matrices.
POC: Charles Howard, charles@onebrief.com
NAICS: Not Provided

Company: Out of the Fog Research LLC /San Francisco, CA
Topic: N08-T018
Phase II Proposal Title: CRES for HF
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: We propose to develop the Cryogenic RF Excision System (CRES) technology to meet the EMI rejection, insertion loss, and size requirements. We will develop components in the HF range to demonstrate interference cancellation and build a laboratory prototype to demonstrate interference cancellation. Later, we will develop an advanced laboratory prototype and test the technology and develop a fieldable ruggedized prototype that can be tested in a relevant environment. Upon completion of the effort, there will be a solid foundation to develop and deliver to the government (for at-sea performance testing) a LRIP CRES HF system.
POC: Stuart Berkowitz, sberkowitz@outofthefogresearch.com
NAICS: 54171, 541690

C4I *(continued)*

Company: P&J Robinson Corporation /Boerne, TX
Topic: N171-083
Phase II Proposal Title: Integrating Cyber Kevlar Tools into DevSecOps Overmatch Software Armory
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: NAVWARs Overmatch Software Armory (OSA) is a Navy development, security and operations (DevSecOps) platform to deliver secure applications more rapidly. OSA is leveraging the Navy's Cyber Kevlar (CK) tools to further debloat and harden software and containers. Navy CK tools are capabilities that embrace the Cyber Ready philosophy by transforming and reducing the attack surface of software, containers and systems. CK tools produce smaller sizes of containerized applications which require less bandwidth at the tactical edge. P&J Robinson (PJR) proposes to continue the effort of maturation, containerization, development, deployment, integration, and automation of selected CK tools into OSA.
POC: Hui Zeng, hzeng@pjrcorp.com
NAICS: 541511, 541330, 541712, 541512

Company: Parraid, LLC /Hollywood, MD
Topic: AF203-DCSO1
Phase II Proposal Title: Parraid Outsourcing Workload (O.W.L) Linux Power and Data Hub
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Parraid provides this updated technology advancement connected to the Outside with Linux (OWL) development effort. While conducting research and development we have found a way to potentially save millions of dollars in software costs by providing OWL hardware with enhanced software technology that establish Machine-to-Machine (M2M) interfaces for tactical data links. This will enable software development and hardware purchases required for a more robust demonstration on the M80 Navy Stiletto vessel. This effort will support demonstrating Joint all Domain Command and Control (JADC2) M2M interactions between the platforms.
POC: Rob Edmonds, redmonds@parraid.com
NAICS: Not Provided

Company: QuNav LLC /Fort Walton Beach, FL
Topic: N224-130
Phase II Proposal Title: Prototyping and Demonstration of GPS Interference DOA Initiative for User Purposes (GIDI-UP)
SYSCOM: NAVWAR
Showcase: STP Technical Information Exchange 2026
Abstract: In response to Navy's GPS Interference Direction of Arrival (DOA) Initiative for User Purposes (GIDIUP), QuNav has set forth an innovative mechanization. To advance the technology towards transitioning, this effort will prototype and demonstrate the GIDIUP system. GIDIUP can serve as a direction-finding sensor for surface and subsurface vessels to provide situational awareness of GPS jamming and spoofing threats to ship systems via the GPNTS. QuNav's GIDIUP mechanization utilizes a cascaded-parallel processing architecture where the jamming signal estimation and suppression module is placed ahead of the spoofing signal estimation and mitigation subsystem.
POC: Chun Yang, yang@qunav.com
NAICS: 541715

Company: Silver Bullet Solutions, Inc. /Arlington, VA
Topic: N221-050
Phase II Proposal Title: Shipboard Defensive Cyberspace Operations (S-DCO)
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Cyber threat hunting is a search capability in systems to search, detect, track, identify, and disrupt advanced cyber threats. We propose a Shipboard Defensive Cyberspace Operations (S-DCO) for the Navigation Enclave that operates in parallel and in coordination with other warfare areas. It is imperative to protect the Navigation Enclaves systems and to ensure they can provide the demanding Quality of Service (QoS) required by mission systems. Newly invented Data Fusion (DF) Artificial Intelligence (AI) algorithms infer attack behavior from observations and features of ownforce assets. This way, when an attack occurs, the DF algorithms will detect the effects.
POC: David McDaniel, davem@silverbulletinc.com
NAICS: 334511, 541512, 541712, 541330

C4I *(continued)*

Company: Solid State Scientific Corporation /Hollis, NH
Topic: N221-061
Phase II Proposal Title: EO/IR Raid Count and Kill Assessment for CSO threats
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: The goal of this Phase II SBIR is to develop a capability that significantly improves Raid Counting and Kill Assessment of a constellation of Closely Space Objects (CSOs) when compared to the current radar-based system. SSSC proposes to train a neural network (NN) to work with a combination of sensors to detect CSOs and reject clutter. SSSC will train and evaluate NN performance for a variety of sensor/platform configurations and compare the performance of each. Sensor characteristics, atmospheric effects and variations in targets and backgrounds will be taken into consideration in the NN training.
POC: Jonathan Kane, Jon.Kane@solidstatescientific.com
NAICS: 541710, 541330

Company: Third Coast Federal, Inc. /South Bend, IN
Topic: AF20C-TCSO1
Phase II Proposal Title: AI Powered Market Intelligence & Tech Scouting Recommendation Engine to Drive a Supply Chain
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: Small businesses generate two out of every three jobs added to the economy and over twenty-four percent (24%) of all patents in the top 100 emerging clusters. They also are critical component of the United States Department of Defense (DoD) supply base. Over the last decade the number of small businesses in the defense industrial base has decreased by more than 40%. One of the key barriers to solving the supply chain issue is lack of effective tech scouting and market research tools. Third Coast Federals iScout platform utilizes an AI powered recommendation engine to instantly evaluate requirements against a marketplace to pinpoint providers with the capabilities and solutions required.
POC: Christopher Frederick, cfreder2@nd.edu
NAICS: 541990

Company: Torrey Pines Logic, Inc. /San Diego, CA
Topic: N231-041
Phase II Proposal Title: Enhanced AN/PAQ-6 Phone Distance Line Replacement for UNREP Distance Measurement and Communications
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: The Phone Distance Line (PDL) has been employed and mostly untouched since the 1940s. This process requires sailors to hold continuous tension on the PDL for accurate readings of the range flags throughout the entire UNREP evolution. A phone line integrated with the PDL connects phone talkers between ships bridges with a voice communications link. The PDL has been identified and proposed to find a means of distance measurement between ships during UNREP with emissions controlled (EMCON) compliant wireless communications. TPL developed a Non-RF Free Space Optic (FSO) Phone and Distance Line replacement (PDL-R) system. We will transition the prototype design a system ready for at sea testing.
POC: Leo Volfson, lbv@tplogic.com
NAICS: Not Provided

Company: Wilson Eagle /San Clemente, CA
Topic: N234-P08
Phase II Proposal Title: Integrating the Advanced Correlator-Navy (ACOR-N) Data Fusion Processor into the Command and Control Experimentation (C2X) Capability
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: The Wilson Eagle/Ausgar Technology/Jove Sciences, Inc. (WELP/A/J) Team will continue the development and testing of the Advanced Correlator-Navy (ACOR-N) and Pattern Of Life Processor (POLP) to transition to the existing Command and Control Experimentation (C2X) program. The ACOR-N and PB/POLis processor is the missing link to Detect, Track, Classify, and Identify (DTC&I) Contacts Of Interest (COIs) to minimize the detect to kill time. The Operational Statistical Real-time Model and the Historical Statistical Real-time Model will be used in a similar manner to the AIS ship case. Minotaur Bloodhound Sidecar (MBS) software will be developed.
POC: James Wilson; jwilson@wilsoneaglelp.com
NAICS: 541715

C4I *(continued)*

Company: XAnalytix Systems /Clarence Center, NY
Topic: N234-P08
Phase II Proposal Title: ACED (Altering Current-state to an Effective Desired-state)
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: The gap between a military mission's current and desired state is critical for planners and strategists. It enables commanders to allocate resources effectively and make informed decisions. ACED (Altering Current-state to an Effective Desired-state) framework will provide capabilities that allow quick decision making based on the past, current and future gap. The use of Reinforced Machine Learning will create new conditions to provide simulations that provide coverage over future outcomes. Metrics are evaluated to determine good indicators of goal success and mission timeliness. This gap analysis will be done at the task level and will be fused up to a mission level gap.
POC: David Sudit, david.sudit@xanalytixsystems.com
NAICS: Not Provided

CYBER

Company: Dignitas Technologies, LLC /Orlando, FL
Topic: N211-088
Phase II Proposal Title: Cyber Simulation TRaining for Impacts to Kinetic Environment (CyberSTRIKE) II
SYSCOM: ONR
Showcase: WEST 2026
Abstract: Naval strike groups may contain space-based, airborne, surface, and subsurface platforms, and include numerous ground- and ship-based systems for sensor data collection and analysis. SIGINT teams are focusing on disruption of ISR capabilities as one step in a complex kill chain. Battle staffs need training which considers cyberspace effects as warfare threats, in line with the traditional kinetic and non-kinetic effects that affect warfighting operations. We will develop a toolset, termed Cyber Simulation TRaining for Impacts to Kinetic Environment (CyberSTRIKE), to distribute cyberspace effect data to traditional training architectures to enable integrated cyber-kinetic training.
POC: Omar Hasan, ohasan@dignitastechnologies.com
NAICS: 541712, 541330

Company: GrammaTech, Inc /Ithaca, NY
Topic: N161-070
Phase II Proposal Title: Scalpel-Debloat
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: We propose to transition, improve, and evaluate a set of software transformation tools for use in DevSecOps. One such improvement is debloating. Software bloat is an acknowledged problem, as bloated applications incur excessive storage and network transmission costs. In addition, every line of software increases cyber-attack surface and exposes the application and potentially the platform on which it runs to a security breach. Debloating tools are available today and tools exist for hardening software against cyber vulnerabilities. Building on our SCALPEL tool for patching embedded firmware, we will transition a set of software debloating, hardening, and other transformation tools.
POC: Jesse Conn, jconn@grammatech.com
NAICS: 541511, 511210, 541712

Company: Smart Information Flow Technologies, d/b/a SIFT /Minneapolis, MN
Topic: N23A-T009
Phase II Proposal Title: MADEIRA: Multi-Agent Debloating Environment to Increase Robustness in Applications
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: SIFT proposes to develop the Multi-Agent Debloating Environment to Increase Robustness in Applications (MADEIRA). MADEIRA will apply AI/ML techniques to learn how to apply debloating tools, automatically reducing the attack surfaces of full systems that may include firmware, OS, container, and application-level targets. We will build on SIFT's proven Cyber Reasoning System (CRS), an autonomous, highly parallel plug-in architecture that applies a wide variety of software analysis and rewriting tools to complex systems. We will incorporate methods from SIFT's related OPENSHELL system, which uses massively parallel Symbolic Reinforcement Learning methods to learn how to apply different tools.
POC: David Musliner, musliner@sift.net
NAICS: 541511, 541720, 541710, 541512

DIRECTED ENERGY

Company: Sensing Strategies, Inc. /Pennington, NJ
Topic: N07-100
Phase II Proposal Title: Sensors for Laser and Broadband Source Detection
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: This program will address measurement requirements for laser and broadband optical sources of interest to the Navy for which there are currently no technical solutions. Two sensors will be developed to measure irradiance for monochromatic lasers and spectral irradiance for broadband sources. The first sensor shall operate over the 0.4-2 micron spectral range and the second will measure over the 1-5 micron range. The effort will leverage technology currently used for laser characterization and extend the sensors capability to broadband sources. In addition, the technology will be extended to measure infrared wavelengths not currently in the sensors measurement range.
POC: Richard Preston, rpreston@sensingstrategies.com
NAICS: 541712

ELECTROMAGNETIC WARFARE

Company: 3DFortify Inc. /Charlestown, MA
Topic: N231-063
Phase II Proposal Title: Advanced Hybrid Gradient Index Lenses via Additive Manufacturing of Low-Loss Materials
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Fortify proposes to develop a 3D printed steerable GRIN lens that has extreme bandwidth, low losses, and can be integrated into a naval or other DoD platform. The lens will be designed to have a conformal shape to match a prospective UAS external profile. The plan will use an iterative design approach, where ~ four lenses of increasing capability will be designed, built, and tested. This effort will start by improving the scan loss and operating bandwidth, and finish with a conformal lens design integrated into a mechanical housing. Selected lens prototypes will be lab tested in environmental conditions relevant to end-use application.
POC: Phil Lambert, phillambert@3dfortify.com
NAICS: 333248

Company: Adaptive Dynamics, Inc /San Diego, CA
Topic: N193-D03
Phase II Proposal Title: Resilient Tactical Communications Using Interference Mitigation Techniques
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: Follow on to the highly successful collaboration that developed the GEMINI (Generalized Excision of Multiple INput Interference) Interference Mitigation (IM) technology. Augmenting blind single-antenna interference mitigation to exploit the spatial diversity from multiple antennas presents a new opportunity to protect systems from intentional and unintentional interference. The GEMINI-IMPS capability developed in this effort could be applied to a wide range of applications, potentially adding blind or semi-blind interference mitigation to any system with at least two antennas and an FPGA to integrate the signal processing firmware.
POC: Brandon Zeidler, brandon@adaptive-dynamics.com
NAICS: 541710, 541690, 541511, 541330

Company: Aspen Consulting Group, Inc. /Point Pleasant, NJ
Topic: N232-108
Phase II Proposal Title: Autonomous, Low-Cost Emitter for Electronic Warfare Training
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Programmable radio frequency (RF) training devices are required for operational training to replicate real world conditions during tactical operations. Any element that uses sensors, receivers, communications devices, other RF devices, navigation equipment, networks and computers require training to develop TTPs for new equipment and sustainment training. Available systems have excessive SWAP, lack the fidelity and power output, and either do communication or non-communications signals. Technical challenges for this effort are associated with reducing cost and SWAP, developing approaches for wideband operation, and simplifying use case, scenario, signal, network, and content generation.
POC: Steve Pizzo, Steve.Pizzo@aspenconsultinggroup.com
NAICS: Not Provided

ELECTROMAGNETIC WARFARE *(continued)*

Company: BlueRISC Inc /Amherst, MA
Topic: N234-P07
Phase II Proposal Title: Navigation Warfare Situational Awareness with AI/ML
SYSCOM: NAVWAR
Showcase: WEST 2026
Abstract: Today's hardware-centric Assured PNT (APNT) antennas are limited with respect to extensibility and their ability to provide actionable navigation warfare situational awareness. A software-based AI/ML approach may have complementary benefits in this domain while also remaining scalable. This solution takes the form of an automated, AI/ML-driven navigation warfare situational awareness software-module targeting integration into Navy GPNTS systems. The solution is expected to further the cyber resiliency and system assurance fields through the creation of a low-cost, software-only navigation warfare situational awareness solution.
POC: Angela Burstein, angela@bluerisc.com
NAICS: Not Provided

Company: FIRST RF Corporation /Boulder, CO
Topic: N231-003
Phase II Proposal Title: P24-036 Broadband Antenna Solution for Vehicle-Mounted EW Systems
SYSCOM: MCSC
Showcase: SEA AIR SPACE 2026
Abstract: The Navy is seeking a consolidated antenna solution for vehicle-mounted EW Systems for geolocating and direction finding. The antenna must support transmit requirements and must interface with an ultra-wideband photonic receiver. The antenna must fit within a one cubic foot form factor and withstand seawater submersion. FIRST RF Corporation proposes an antenna design that provides a broadband, dual-polarized, configuration suitable for receive and transmit applications. The antenna achieves a gain flatness response and maintains a wide field of view spanning at least 45 in both azimuth and elevation. The antenna is tailored to interface with next-generation multi-channel receivers.
POC: Michael Markey, mmarkey@firstrf.com
NAICS: 541330

Company: Indiana Microelectronics LLC /West Lafayette, IN
Topic: N171-074
Phase II Proposal Title: Notch Filters for Interference Mitigation in SATCOM Systems
SYSCOM: NAVWAR
Showcase: STP Technical Information Exchange 2026
Abstract: This project focuses on the development of compact tunable notch filters for interference mitigation in 3GPP satellite arrays. The filters will be integrated into a commercial 3GPP SATCOM array system and flight tested to demonstrate enhanced system resiliency in the presence of self-generated and external RF interference. A high-speed controller will be developed and tested for sub-microsecond tuning. The effort will focus on increasing the maturity level of the filters controlled by high-speed tuning through batch testing as well as increasing the frequency coverage and integration level with the targeted SATCOM system.
POC: Mike McPheters, mmcpheters@indianamicro.com

Company: Metamagnetics, Inc. /Marlborough, MA
Topic: N101-075
Phase II Proposal Title: Switchable L-Band Auto-tune Filter Module
SYSCOM: NAVWAR
Showcase: STP Technical Information Exchange 2026
Abstract: Assured communications is critical in congested and contested EM environments. They face SNR degradation or hardware damage from both hostile and friendly high-power EM emitters. Metamagnetics has developed a passive, automatically reconfiguring, RF signal conditioning component technology called the Auto-tune Filter (AtF). AtF technology is unlike any existing filtering and/or limiting technology and is exceptionally effective in enabling modern wideband RF receivers to maintain high sensitivity when subjected to a wide range of electromagnetic interference types. Metamagnetics will develop a module tailored to protect Navy communications equipment from a wide range of EMI conditions.
POC: Dayton Engstrom, dengstrom@mtmgx.com
NAICS: 334515, 334419, 334220, 423690

ELECTROMAGNETIC WARFARE *(continued)*

Company: SimVentions, Inc. /Fredericksburg, VA

Topic: N181-025

Phase II Proposal Title: Electronic Warfare Data Analysis and Reduction Tool (E-DART)

SYSCOM: NAVSEA

Showcase: STP Technical Information Exchange 2026

Abstract: SimVentions is creating tools to support SEWIP. Electronic Warfare (EW) programs have a need for a data analysis tool that will enhance the ability to report information to verify and validate system requirements, resolve Test Reports, Trouble Reports, and support documentation of findings. There is a need for a solution that increases the capabilities of data analysts while reducing the time and human induced errors. SimVentions proposes EW Data Analysis and Reduction Tool (E-DART) to ingest multiple data formats and support rapid analysis. E-DART will evaluate messaging, logging, and data extraction points to reduce wasted time and provide visualization to support rapid identification.

POC: Katherine Phillips, KatherinePhillips@simventions.com

NAICS: Not Provided

Company: Tercero Technologies Inc. /Chicago, IL

Topic: N192-048

Phase II Proposal Title: Computationally Efficient Deep Learning-Powered EWS Radar Data Preprocessor (CELER)

SYSCOM: MCSC

Showcase: WEST 2026

Abstract: The inability of dismounted radar-based Electronic Warfare System (EWS) systems to process and analyze track data in realtime poses a barrier to effective Marine Corps missions. Tercero will develop the Computationally Efficient Deep Learning-Powered EWS Radar Data Preprocessor (CELER), a system designed to process millions of EWS radar data points per second using Recurrent Neural Networks. CELER allows the system to be carried with backpack EWS systems, with a small footprint and light weight. CELER is efficient in terms of computing power per Watt. The system will filter out noise and classify signals of interest. CELER is ideal for battery powered systems such as unmanned vehicles.

POC: Carl Evans, carl.evans@tercero.ai

NAICS: Not Provided

Company: Vadum /Raleigh, NC

Topic: N171-044

Phase II Proposal Title: Cognitive Software Algorithms Techniques for Electronic Warfare

SYSCOM: NAVSEA

Showcase: STP Technical Information Exchange 2026

Abstract: Vadum will implement a cognitive threat characterization system (CTCS) for transition to the Aegis Weapons System (AWS). The CTCS employs a learning framework and feature extraction algorithms to detect, classify, and predict agile, adaptive threats using both RF and kinematic properties. CTCS will leverage data products from AWS sensors. Disparate sensor data sources can augment threat detection, identification, and intent estimation, enabling highly accurate prediction of future threat behavior in each of the RF and kinematic domains. Vadum will develop a capability to fuse these sensor data sources providing hard kill/soft kill coordination and engagement decisions with greater lethality.

POC: Chris Cunningham, chris.cunningham@vaduminc.com

NAICS: 334511, 541330, 541712

ENERGY & POWER TECHNOLOGIES

Company: Diversified Technologies, Inc. /Bedford, MA
Topic: N221-064
Phase II Proposal Title: Medium Voltage Direct Current Disconnect Switches
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: Future U.S. Navy DC power distribution systems will require advanced switchgear technology to enable the reductions in volume, weight, cost, and maintenance possible with high-speed DC shipboard power distribution and protection systems. Disconnect switches are isolation devices which serve a critical role in the power system architecture. A scalable disconnect switch design was developed. The disconnect switch showed expected opening and closing performance. DTI proposes to develop a family of air-cooled, high efficiency, high power density MVDC two-pole disconnect switches and accompanying cabinet enclosures for 12 kV MVDC distribution systems.
POC: Juliet Collings, JCollings@divtecs.com
NAICS: 334419, 335999

Company: Lynntech, Inc. /College Station, TX
Topic: N222-088
Phase II Proposal Title: Retrofittable High-Power Kit
SYSCOM: MCSC
Showcase:STP Technical Information Exchange 2026
Abstract: The Marine Corps program office, Land Systems, manages the acquisition of sustainment of SMC ground systems critical to the Fleet Marine Force. Power demands are ever increasing within the DoD and there is a need to develop a 50kW aftermarket high power generation kit for the current JLTV general variant. To meet the growing power demand Lynntech leverages its experience with complex energy and power systems and proposes a system integration approach to develop a Retrofittable High-power Kit for the JLTV.
POC: Sanjiv Lalwani, sanjiv.lalwani@lynntech.com
NAICS: Not Provided

Company: Lynntech, Inc. /College Station, TX
Topic: N232-086
Phase II Proposal Title: "Structural Composite Battery for Small UAVs"
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Current UAV designs face challenges related to flight duration, mission capabilities, and structural efficiency, limiting their performance. This project plans innovative solutions by developing structural battery solutions that will enable lightweight multifunctional structures, that can reduce weight, improve performance and efficiency, and extend mission duration within current mass/volume envelope. A novel structural battery solution that provides both structural benefits and excellent battery performance is needed. Lynntech has demonstrated a structural battery solution for UAVs with tunable shear strength values and excellent battery performance.
POC: Sanjiv Lalwani, sanjiv.lalwani@lynntech.com
NAICS: Not Provided

Company: nou Systems, Inc. /Huntsville, AL
Topic: N221-057
Phase II Proposal Title: Development of a Low-Cost, Single-Use, and Extremely Compact Air-Independent Power System
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: nou Systems Inc. (nSI) is developing a low-cost, single-use, compact, propellant powered generator to augment the capabilities of the MK39 EMATT. Our generator operates in a controlled open-loop cycle, transforming stored chemical energy in low-toxicity green propellants into electricity. Models indicate that our resulting generator can meet and potentially exceed requirements. We plan to work with NUWC, and complete design and fabrication of EMATT integrable prototypes and demonstrate the benefits of our system in a prototypical environment.
POC: Francisco Valentin, francisco.valentin@nou-systems.com
NAICS: 541330, 518210, 541712, 519190

ENERGY & POWER TECHNOLOGIES *(continued)*

Company: Physical Sciences Inc. /Andover, MA
Topic: N212-102
Phase II Proposal Title: Modular Collapsible Hydro-Electric Generator (MCHEG)
SYSCOM: MCSC
Showcase: STP Technical Information Exchange 2026
Abstract: There is a needs for a portable, hydroelectric generator to provide electrical energy to recharge batteries and power equipment. Electrical energy used in the field today is primarily generated using diesel generators. Having the option to use an energy source present in the environment, such as a river or stream, reduces the need to transport and store fuel. PSI is developing the Modular, Collapsible Hydro-Electric Generator (MCHEG). PSI will develop an advanced, collapsible prototype MCHEG turbine array prototype that meets the USMC electrical power generation, weight, stowed volume and deployment time requirements. The prototype developed will consist of four 125 W / 24V modules.
POC: Ziv Arzt, zarzt@psicorp.com
NAICS: 541720, 541711, 541712

ENGINEERED RESILIENT SYSTEMS

Company: Fuse Integration, Inc. /San Diego, CA
Topic: N231-015
Phase II Proposal Title: Back End Data Lake and Microservices
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: The Fleet needs a standardized data management strategy for increasingly complex Battle Management Aids (BMAs). Currently, BMAs are developed in non-government-controlled repositories, which may share common services, but may not use the same data sources for those services. The Back-End Data Lake and Microservices (BEDLAM) effort seeks to implement an easy-to-use microservice architecture to add desired data into a common repository for collective use. The BEDLAM design makes use of a Gateway Application Programming Interface (API) to serve as a single interface for client applications requesting data already present in the BEDLAM system or to other connected applications.
POC: Dell Kronewitter, dell.kronewitter@fuseintegration.com
NAICS: 541511, 541330, 541412, 541712

Company: Modus Operandi, Inc. /Melbourne, FL
Topic: N234-P02
Phase II Proposal Title: LOGEN (Logistics Enhancement with Living Intelligence)
SYSCOM: NAVAIR
Showcase: WEST 2026
Abstract: Effective management and utilization of logistics data are critical for mission success in naval environments. This proposal introduces a blockchain-enabled object-based production system designed to ensure the continuity of critical logistics operations even in low-bandwidth or disconnected scenarios. Central to the solution is an Object Management System (OMS) that manages heterogeneous data sources, including logistics data and operational reports. Key features include the integration of reasoning engines that provide real-time insights through predictive analytics and automated decision support, empowering commanders to make informed logistical decisions.
POC: Kim Ziehlke, kziehlke@modusoperandi.com
NAICS: 541513, 541511, 511210, 541512

Company: THOR Solutions, LLC /Arlington, VA
Topic: N211-039
Phase II Proposal Title: SHARK BAIT - Shared Historical Anti-Submarine-Warfare Reachback Knowledge Built on Artificial Intelligence Technology
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: THOR Solutions is spearheading SHARK BAIT CE (Shared Reachback Knowledge Build on Artificial Intelligence Technology for Chaos Engineering). This project enhances the Navy's Integrated Combat System (ICS), focusing on bolstering the resilience of computing infrastructures against escalating threats that undermine mission success. SHARK BAIT CE progresses an AI/ML suite designed for military software applications with enhanced user-centered design and Chaos Engineering tools. Prototypes will be developed in the context of the PEO IWS Forge Software Factory ecosystem, employing a strategic implementation that includes stakeholder engagement, iterative testing, and alignment with Navy protocols.
POC: Jamal Callaway, jcallaway@thorgcc.us
NAICS: Not Provided

GROUND AND SEA PLATFORMS

Company: Advanced Technology & Research Corp. /Beltsville, MD
Topic: N202-109
Phase II Proposal Title: Launch System for Group 3-5 Unmanned Aerial Vehicles for Land- and Sea-Based Operations
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: The goal of this project is to develop the Modular Kinetic Launch System (MKLS) that will allow the Navy to launch large Group 3-5 Unmanned Aerial Vehicles (UAV) from the Expeditionary Sea Base (ESB) Ship and from austere land environments. The launch system is capable of handling 6,000 lb fighter-form high-launch-speed LCAATs, but also be flexible and compatible enough to launch smaller (1000 lb) UAV. The program will design the system and then build and test a scale prototype. TRL 5/6 will be achieved through modeling, simulation, build, and testing. This technology will entail detailed work in the controlled launch of UAV systems with a high variability in weight and launch velocity.
POC: David Hart, dhart@atrcorp.com
NAICS: 541330, 541710, 333922, 541511

Company: Arete Associates /Northridge, CA
Topic: N131-055
Phase II Proposal Title: Airborne Cueing Enhancement (ACE) Update
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: Using radar systems, aircraft can detect a periscope at a standoff of many kilometers. Conversely, an aircraft can be difficult to detect in periscope imagery at that same range. Arete's Airborne Cueing Enhancement (ACE) was designed to address this problem. ACE is able to effectively detect very dim, small targets that may be missed by human operators and standard tracking algorithms. ACE provides the operator with location, velocity, and a confidence indicator, allowing for rapid threat assessment and confirmation. Advancements in ML warrant an update to ACE. Arete proposes to significantly reduce the algorithms False Alarm Rate while maintaining or potentially improving the Pd.
POC: James Roberts, jroberts@arete.com
NAICS: 541712

Company: Diversified Technologies, Inc. /Bedford, MA
Topic: N171-075
Phase II Proposal Title: Electromagnetic Vertical Launch System
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: This effort will develop vertical electromagnetic launchers to provide cold launch technology for missiles and demonstrate a cold launch demonstration of missiles in a multi-packed configuration. The launcher system consists of a multi-phase power supply, a launch barrel with phased stator drive coils, and the conductive sabot surrounding the missile. Multiple launchers can be redundantly powered by multiple power supplies connected through robust switching for high reliability, fault tolerance, and casualty recovery. This program will investigate the limits of an electromagnetic vertical launcher system, and demonstrate a sequential multi-missile near-vertical cold launch capability.
POC: Juliet Collings, JCollings@divtecs.com
NAICS: 334419, 335999

Company: Fathom5 /Austin, TX
Topic: N231-053
Phase II Proposal Title: Improved Electromechanical Actuators for Aircraft Carrier Flight Deck Applications
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: The safe deployment and recovery of airwings on aircraft carriers demands sophisticated flight deck systems. The Jet Blast Deflector (JBD) system deflects jet exhaust during launch operations. Traditionally, hydraulic actuators were used, but the CVN-78 introduced electromechanical actuators (EMAs) for their improved resilience, simplicity, and safety. However, operational challenges persist. The Tesar Power technology being developed as part of this project is a compact, high-torque electromechanical actuator (EMA) that offers world-leading torque density. The next generation of ships require a less maintenance-intensive alternative than currently used hydraulic systems.
POC: Robert Neves, scott@fathom5.com
NAICS: Not Provided

GROUND AND SEA PLATFORMS *(continued)*

Company: JNI Armor /Stanton, CA
Topic: N181-001
Phase II Proposal Title: Extended Life of Transparent Armor
SYSCOM: MCSC
Showcase: STP Technical Information Exchange 2026
Abstract: Transparent armor for military requires ballistic protection and durability. Current transparent armor is causing a problem in sustainment. This effort develops extended life through material science and durability testing. This will be done in five primary ways, understanding mechanisms that cause delamination, wedge tests to improve lifetime, improved transparent armor materials to include edge seals, adhesion to spall layers, and novel spall layer, understand additional transparent armor failure mechanisms, and transition technologies to a production platform. JNI Armor will then transition the procurement specification and transparent armor technologies to fielded platform(s).
POC: David Jungk, djungk@jniarmor.com
NAICS: Not Provided

Company: Micro Nano Technologies /Gainesville, FL
Topic: N231-064
Phase II Proposal Title: Reversible Replenishment Air-Conditioning System
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: To improve efficiency and performance of Ship HVAC systems, an efficient, compact, heat-driven absorption-based HVAC technology involving efficient treatment of air conditioning latent load has been developed. The technology involves direct removal of moisture from air rather than condensing moisture on cooling coils. A working prototype of the system will be built, and its operation will be demonstrated to reduce shipboard HVAC power consumption at a variety of inlet air conditions. These efforts will demonstrate the functionality and performance of a compact, efficient absorption dehumidification and heating system optimized for operation shipboard operations.
POC: Michael Schmid, mschmid@mntusa.com
NAICS: Not Provided

Company: PacMar Technologies LLC /Honolulu, HI
Topic: N192-101
Phase II Proposal Title: Capture and Deploy Device using Inflatable Elements (CaDDIE)
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: A new system to deploy and retrieve a UUV from a Patrol Boat (Mk VI) was developed and simulated. The Capture and Deploy Device using Inflatable Elements (CaDDIE) is a combination of inflatable drop-stitch technology, an aluminum chassis, and electric thrusters. The CaDDIE will successfully launch and recover UUV in a variety of sea states without the assistance of a manned CRRC. This effort involves the detailed design of the CaDDIE and the fabrication and testing of a full-scale demonstrator. The demonstrator will be tested in controlled conditions and later an open-ocean environment with a surrogate UUV.
POC: Tim Lee, tlee@pacmartech.com
NAICS: 541710

Company: PacMar Technologies LLC /Honolulu, HI
Topic: N211-032
Phase II Proposal Title: Extra Large Unmanned Undersea Vehicle (XLUUV) Dock
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: PacMar Technologies is offering a self-contained fendering and towable XLUUV Semi-submersible Maintenance Platform (XSeMP). The XSeMP will enable waterborne operations such as towing, payload replenishment, and in-water service and maintenance by raising the freeboard of XLUUV. The platform provides permanent fendering and protection for the XLUUV and enables the XLUUV to be towed in open calm water and moored along a pier, quay or In-water Service Platform (ISP). The XSeMP is a lightweight, modular, composite, inflatable rigid platform comprised of a rigid aluminum structure with variable buoyancy, fixed flotation, and a grating deck allowing access to service and maintenance areas.
POC: Tim Lee, tlee@pacmartech.com
NAICS: 541710

GROUND AND SEA PLATFORMS *(continued)*

Company: Physical Sciences Inc. /Andover, MA

Topic: N161-054

Phase II Proposal Title: Compact Lidar for Environmental Sensing in Support of Electromagnetic Maneuver Warfare

SYSCOM: NAVSEA

Showcase: SEA AIR SPACE 2026

Abstract: The Shipborne Atmospheric Extinction Lidar (SAEL) is a compact lidar that provides range-resolved extinction measurements along a slant path and is intended to become test range instrumentation for High Energy Laser (HEL) weapon performance assessment. Data products include range-resolved aerosol backscatter and extinction coefficients at a wavelength of 1.05 m with spatial and temporal resolutions. SAEL can obtain scans of these products in azimuth and elevation to ranges of 10 km. This program will increase the value of SAEL by enhancing its capabilities to support a wider range of HEL system testing.

POC: David Sonnenfroh, sonnenfroh@psicorp.com

NAICS: 541720, 541711, 541712

Company: Trex Enterprises Corporation /El Cajon, CA

Topic: N222-089

Phase II Proposal Title: CNS for Long Range Unmanned Surface Vessels

SYSCOM: MCSC

Showcase: WEST 2026

Abstract: Long-Range Unmanned Surface Vessels (LRUSV) are designed to operate for several days at long ranges. LRUSVs cannot always rely on GPS. Trex is developing a Celestial Navigation System (CNS). CNS provides high accuracy position updates to the onboard INS; drifts and biases of the INS and Schuller oscillation do not affect CNS position accuracy. The update rate is once every 5 minutes. CNS has a small topside volume 2 computer slots. In the Phase-II program, prototype optical, mechanical, electrical, and software designs will be developed. Celestial Navigation algorithms will be refined, real-time software will be developed, prototype software and hardware will be integrated.

POC: Mikhail Belenkii, mbelenkii@Trexenterprises.com

NAICS: 541712

Company: Triton Systems, Inc. /Chelmsford, MA

Topic: N231-046

Phase II Proposal Title: Revolutionized Undersea Training Target Motors

SYSCOM: NAVSEA

Showcase: STP Technical Information Exchange 2026

Abstract: Triton Systems, Inc. proposes to modernize and improve the efficiency of the MK39 Expendable Mobile Anti-Submarine Warfare (ASW) Training Target (EMATT) motor. Endurance, speed, acoustic noise, and cost are system-level goals that this motor development effort will support for the EMATT propulsion system. Triton proposes an innovative motor configuration, design, and materials to achieve the highest efficiency at the selected operating range. The motor is designed to let the EMATT hit objective speeds and increase runtime endurance while maintaining acoustic noise and cost constraints.

POC: Christian Grippo, cgrippo@tritonsys.com

NAICS: 541712

HUMAN SYSTEMS

Company: ARiA /Madison, VA
Topic: N192-094
Phase II Proposal Title: Interactive Tactical-Oceanography Training for Sonar Operators
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: This project will address tactical-oceanography training by using the ESAIL capability created to develop interactive tools tailored around specific learning objectives and deploying these tools to the Moodle learning-management system (LMS) component of the AN/BQQ-10 and AN/SQQ-89 PoRs. ESAIL provides a stand-alone capability for simulation of sensor performance using Oceanographic OAML databases and enables manipulation of the environment and visualization of the resulting deltas. ESAIL can integrate with the Moodle and can be launched from within Moodle. ARiA will develop, demonstrate, and deliver a tactical-oceanography training capability for the Moodle LMS based on the ESAIL platform.
POC: Jason Summers, jason.e.summers@ariacoustics.com
NAICS: 541720, 541690, 541712, 541511

Company: Barron Associates, Inc. /Charlottesville, VA
Topic: N23A-T014
Phase II Proposal Title: Human Automation Teaming for Efficient Knowledge Extraction and Test Generation
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Tools for evaluating the proficiency of warfighters at employing complex systems are essential for operational capability within the Navy. This AI-enabled Supervised Assessment Generation (AI-SAGE) software tool will provide a general-purpose capability to generate test material from technical documents that describe the capabilities of a complex system and the operational employment of that system. It will enable a person toy team with AI to complete the test generation task. The tool will support updates based on updated source documents. Current work will fully implement the AI-SAGE software tool, and add capabilities including answering/updating/generation of advanced question types.
POC: Alec Bateman, barron@bainet.com
NAICS: 541710, 541330, 541712

Company: Charles River Analytics Inc. /Cambridge, MA
Topic: N221-024
Phase II Proposal Title: Communications with Operational Context and Knowledge for Target Audio Identification Learning (COCKTAIL)
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Charles River Analytics is developing a Communications with Operational Context and Knowledge for Target Audio Identification Learning (COCKTAIL). COCKTAIL is a training module that requires accurate speech recognition. COCKTAIL is based on grammar-assisted speech processing (GASP), which uses linguistic grammars to model the language and build speech models tailored to training scenarios. Air traffic control language is idiosyncratic, so existing speech-to-text systems have high word error rates (WERs) even on clean synthetic speech data. Using GASP enables COCKTAIL to drastically reduce the WER.
POC: Mike Giancola; mgiancola@cra.com
NAICS: 541712

Company: InnoVital Systems, Inc. /Calverton, MD
Topic: N232-083
Phase II Proposal Title: Helicopter Seat-Integrated Power Assist Device
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Studies have shown that the flight environment leads to warfighter fatigue, back pain, and long-term chronic injuries. Since the 1970s, the weight of equipment loaded on an aviator has increased by 800% - doubling the total mass supported by the occupants lower back. This increases the chances of acute injuries, and the added weight combined with a helicopter pilots typical posture leads to an inordinate amount of fatigue and long-term chronic injuries. InnoVital Systems has begun developing the lightweight and mechanically safe and simple ActiveSpine to off-load the occupants spine by providing a secondary backbone to transmit the gear loading directly to the seat structure.
POC: Curt Kothera, curt@innovitalsystems.com
NAICS: Not Provided

HUMAN SYSTEMS *(continued)*

Company: Luna Labs USA, LLC /Charlottesville, VA
Topic: N232-089
Phase II Proposal Title: Sentinel: Automatic LPUs for Ejection Seat Aircraft
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Current Life Preserver Units (LPU) for Fixed Wing Ejection Seat Aircraft are equipped with FLU-8B/P inflators that initiate inflation automatically upon sensing water immersion. The FLU-8 design was deployed in the early 1980s and is positioned to be updated. Logistical constraints to secure the battery and other components has reduced availability for fleet maintainers. There is a need for an innovative and affordable LPU inflation assembly compatible with the LPU-23D/P and LPU-36A/P that NAVAIR can reliably source. To address this need, Luna Labs USA, LLC is developing the Sentinel automatic inflation system for Fixed-Wing Ejection Seat Aircraft.
POC: Kelley Virgilio, Kelley.Virgilio@LunaLabs.us
NAICS: 541715

Company: Sonalysts, Inc. /Waterford, CT
Topic: N231-044
Phase II Proposal Title: Expeditionary Command/Control and Training (ECaT)
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Sonalysts, Inc. (Sonalysts) proposes a portable expeditionary unit that can deliver Undersea Warfare Decision Support System (USW-DSS) training to the Fleet via an orchestrated containerized system with an integrated training management application to track operator completion and launch training content. The Sonalysts solution will also include Artificial Intelligence/Machine Learning (AI/ML) based training customization and operational level training.
POC: Kenneth Huff, khuff@sonalysts.com
NAICS: 334220, 511140, 541710, 334613

MATERIALS & MANUFACTURING PROCESSES

Company: Agnitron Technology Inc. /Chanhassen, MN
Topic: N201-071
Phase II Proposal Title: Develop Ultra-Fast Metastable Ion Implant Activation System
SYSCOM: ONR
Showcase: WEST 2026
Abstract: DoD and Navy missions require advances in current high voltage power electronics technology. GaN-based technology will enable >10kV power switching devices. Establishing complex device geometries and doping profiles required to manufacture efficient high-voltage and high-frequency devices remain the major hurdle in the field. GaN is unstable at high temperatures, prohibiting conventional annealing methods. We propose to design and build a Multicycle rapid thermal annealing (MRTA) system with ultrafast sub-second heating and cooling cycle rates (>1000 K/s). The MRTA allows shorter temperature pulses and achieves a higher maximum peak temperature in GaN without decomposing the material.
POC: Nate Broscoff, nate.broscoff@agnitron.com
NAICS: Not Provided

Company: Boston Engineering Corporation /Waltham, MA
Topic: N221-040
Phase II Proposal Title: Shipboard Laser DED Metal Additive Manufacturing System
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Boston Engineering will advance ADDiTEC Laser Metal Deposition (LMD) technology; a form of metal additive manufacturing (MAM)technology, to meet operational requirements on board expeditionary vessels, such as shock and vibration. Efforts include development, options analysis, design and solution transition planning. Starting with a proven MAM technology lowers risk for establishing metal printing capability and reduces the transition time to our warfighters. Activities include assessment and design for part additive manufacturing (AM) in conjunction with subtractive manufacturing (SM), which provides a more advanced and complete part manufacturing solution.
POC: Douglas Schmidt, dschmidt@boston-engineering.com
NAICS: 541710, 541511, 541330

MATERIALS & MANUFACTURING PROCESSES *(continued)*

Company: Cornerstone Research Group, Inc. /Miamisburg, OH
Topic: N231-D02
Phase II Proposal Title: Rapid, Randomly Oriented SiC/SiC Composites
SYSCOM: SSP
Showcase: SEA AIR SPACE 2026
Abstract: Hypersonic vehicles will require improved materials to support next-generation air vehicles. Though high-speed vehicles exist and employ CMC, not all CMC materials are able to tolerate the thermal and mechanical stresses associated with these applications. Composites made from SiC matrix surrounding SiC fibers tend to be the most affordable solution, providing better survivability than carbon fiber-based composites. CRG anticipates the ability to rapidly mature such SiC/SiC material technologies to enable long-term test and operation of components made from these materials and processing, enabling transition of these materials to in current and next-generation vehicles.
POC: Karl Gruenberg, gruenbergkm@crgrp.com
NAICS: 541712, 541690, 541330, 541380

Company: Cornerstone Research Group, Inc. /Miamisburg, OH
Topic: N23B-T032
Phase II Proposal Title: Active Part Filtering for Additive Manufacturing Candidate Identification
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Cornerstone Research Group, Inc. (CRG) proposes to develop an additive manufacturing candidate identification (AMCI) tool which automatically processes technical data packages, applies part filtering/assessment methods to score the part against a list of additive manufacturing criteria, and categorizes parts according to their suitability for additive manufacturing. This tool will feature a continuously tuned machine learning prediction component to produce assessment metrics directly from technical data package information. CRGs research institution partner, PSU, will formulate the core filtering and assessment methodology for implementation and automation via machine learning application.
POC: Catherine Ashley, ashleycc@crgrp.com
NAICS: 541712, 541690, 541330, 541380

Company: CPS Technologies Corporation /NORTON, MA
Topic: N221-022
Phase II Proposal Title: Leveraging Metal Matrix Composites for Thermal Energy Storage
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: CPS has fabricated a metal matrix composite (MMC) consisting of an aluminum (Al) alloy matrix reinforced with nitinol (NiTi) shape memory alloy. CPS will optimize the Al-NiTi material for thermal energy storage applications. NiTi will act as a phase change material (PCM) to store thermal energy, while the Al matrix will provide light weighting and increase the bulk thermal conductivity. NiTi is used to exploit phase change to recover component strain/shape after deformation. The composites will decrease the overall footprint of current Al-Wax designs by over 50%. Thermal properties will be integrated into a comprehensive model to design compact thermal energy storage devices.
POC: Stephen Kachur, skachur@cpstechnologysolutions.com
NAICS: Not Provided

Company: Faraday Technology, Inc. /Englewood, OH
Topic: N22A-T015
Phase II Proposal Title: Additive Manufacturing Method for High Performance Copper Electronic Components
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: This technology will enable production of copper-based high performance electronic structures, with fine tolerances and smooth surfaces. Complex copper-based high frequency electronic structures are currently manufactured by brazing together multiple wrought Cu segments. The joints throughout the electronic structure negatively affects performance during high frequency operation. Additive manufacturing can produce seamless structures from pure Cu but performance is limited due to surface roughness and oxygen content. This technology will directly print and finish copper-based high frequency electronic structures and apply an oxygen-free Cu coating throughout the passage length.
POC: Timothy Hall, timhall@faradaytechnology.com
NAICS: 541715

MATERIALS & MANUFACTURING PROCESSES *(continued)*

Company: Integrated Solutions for Systems /Huntsville, AL
Topic: N221-075
Phase II Proposal Title: Enhanced Lethality Warhead
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: IS4S proposes an enhanced lethality warhead through the integration of additive manufacturing (AM) and reactive materials (RM) in a novel warhead configuration in the same form-factor as fielded weapons to allow those weapons to punch above their weight by engaging a broader range of targets. AM-enabled design features create efficiencies in fragmentation lethality tailoring, explosive claim-space, and blast directionality. Conventional weapons rely on traditional HE and inert fragments. A combination of reactive fragments with additively manufactured inert materials can increase the available energy in the warhead while enhancing the efficiency of energy transfer to the target.
POC: Greg McCann, greg.mccann@is4s.com
NAICS: 541330

Company: IRFlex Corporation /Danville, VA
Topic: N231-011
Phase II Proposal Title: Optical Additive Manufacturing in the MWIR and LWIR Bands
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: The proposed technical effort will develop a novel Additive Manufacturing (AM) process to deposit optical materials transparent in the mid-wave infrared (MWIR) and long-wave infrared (LWIR) for the manufacturing and the refurbishment of optical imaging components. The MWIR-LWIR AM laser deposition process shall be able to safely deposit hazardous MWIR and LWIR optical materials on existing infrared transmitting substrate within the desired infrared transmission band, and produce high-quality optics with good optical properties, full densification, and good surface quality (such as lambda/10) with minimal or no post-processing.
POC: Francois Chenard, francois.chenard@irflex.com
NAICS: 334417, 335921, 541710

Company: Kitware /Clifton Park, NY
Topic: N222-117
Phase II Proposal Title: AI/ML for In-Situ Additive Manufacturing Defect Detection
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Additive manufacturing (AM) increases the speed and flexibility of producing complex parts. AM-produced parts can have various defects which can alter mechanical properties. Nondestructive inspection methodologies increase cost and production time. The ideal solution is monitoring part quality in real-time as the part is being built using in situ sensors. Kitware proposes to bring the latest advances in deep neural network artificial intelligence and signal fusion to optimize and extend 3D metal additive manufacturing systems. Our system is a platform-independent, interactive, in-process quality assurance system that combines data collection, inspection, feedback, and critical analysis.
POC: Matthew Brown, matt.brown@kitware.com
NAICS: 541715

Company: Kyma Technologies, Inc. /Raleigh, NC
Topic: J201-CSO1
Phase II Proposal Title: Pulsed Sputter Deposition (PSD) for Efficient Doping for GaN HEMT Contacts
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Gallium nitride (GaN) represents a critical semiconductor technology for radars, missile guidance, satellites, surveillance, wireless base stations, and much more. The HEMT, or high electron mobility transistor, is the basic electronic device from which GaN-based technologies are built. To maximize device performance, the HEMT manufacturing process relies on an expensive molecular beam epitaxy (MBE) step during the preparation of the contacts. Kyma will work to replace the expensive process with a lower cost and higher performing technology, pulsed sputter deposition (PSD). PSD films will be grown on live HEMT epiwafers and the process will be optimized for process insertion.
POC: Jacob Leach, leach@kymatech.com
NAICS: 334413, 541712

MATERIALS & MANUFACTURING PROCESSES *(continued)*

Company: Luna Labs USA, LLC /Charlottesville, VA
Topic: N231-043
Phase II Proposal Title: Ultra-Low Temperature Gaskets & Seals for Extreme Environments
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: Gaskets/seals enable the function of critical ship components in various environments. The increasing deployment of these ships into polar regions leads to exposure to extreme cold weather resulting in brittleness, cracking/shattering, and leaking. There is currently no material available that can survive in Arctic environments. Luna Labs has developed a material that demonstrated excellent resistance against oil and fuels and verified tunability for hardness and compression. The material is an easily manufactured custom polyurethane that meets most of the requirements outlined in MIL-R-6855E for Class 1 and Class 2 synthetic rubber sheets.
POC: Luis Velazquez, luis.velazquez@lunalabs.us
NAICS: Not Provided

Company: Materials Sciences LLC /Horsham, PA
Topic: N221-049
Phase II Proposal Title: Radar Absorbing Material Maintainability Improvements
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: Navy requests the development of materials and/or processes addressing deficiencies related to lifespan and performance of radar absorbing materials (RAM). Targeted RAM tile applications are showing premature, in-service failures and delamination. There is a need to build a domestic manufacturing base that facilitates expanded production capacity and accessibility to proven, customizable material solutions. The approach identified by Materials Sciences LLC (MSC) focuses on the industrialization of a proven polyurethane based Protective Coating material system. These alternative material forms will enable a direct substitution with a serviceable, proven maritime alternative.
POC: Michael Orlet, orlet@materials-sciences.com
NAICS: Not Provided

Company: METSS CORPORATION /Westerville, OH
Topic: N221-055
Phase II Proposal Title: Improved Towed Array Acoustic Hose
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: The objectives include developing improved acoustic hoses for USN towed array systems. Current hoses are manufactured using an extrusion process and thermoplastic polyurethanes (TPUs) with a variety of reinforcement cords. Each hose exhibits an unreliable life cycle as they are vulnerable to mechanical creep, water saturated Isopar (WSI), and physical damage. METSS will investigate acoustic hoses filled with Isopar L and M as these fluids are hypothesized to exasperate degradation of critical acoustic hose performance
POC: Brian Collett, bcollett@metss.com
NAICS: 541710

Company: Pacific Engineering, Inc /Roca, NE
Topic: N192-108 **Phase II Proposal Title:** Lightweight Composite Launcher Components
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: The technical objectives of this project are to design, analyze, test, and build a lightweight, corrosion-resistant missile cell and uptake hatch covers to replace the existing metal hatches on the MK 41 Vertical Launching System. PEI will modify the Cell and Uptake Hatch design to incorporate a lightweight unique armor concept expected to provide a weight savings of approximately 50% as well as increase the insulative properties of the hatch. PEI will investigate improvements for the trunnion design to reduce corrosion in the trunnion bearings. PEI will develop materials and processes that will result in a composite canister.
POC: Dexter Myers, dexter.myers@pacificengineeringinc.com
NAICS: 541330; 336419; 337215; 541715; 326199

MATERIALS & MANUFACTURING PROCESSES *(continued)*

Company: Physical Sciences Inc. /Andover, MA
Topic: N193-144
Phase II Proposal Title: A Hypersonic Environmental Testbed for Affordable and Standardized Materials Strength Testing
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: PSI proposes to refine and implement a compact, low cost hypersonic materials mechanical strength (HMMS) testbed capable of in-situ tensile strength measurements of materials exposed to a simulated hypersonic environment. The testbed design combines hypersonic materials testbed technology and associated diagnostics with a universal vacuum interface compatible with a universal testing machine. The testbed capability will be demonstrated with carbon-carbon, ceramic matrix composite and other material test articles of interest. PSI will upgrade the semi-automated control software developed for the testbed in the base program to enable time varying control of process parameters.
POC: David Oakes, oakes@psicorp.com
NAICS: 541720, 541711, 541712

Company: Physical Sciences Inc. /Andover, MA
Topic: N23A-T006
Phase II Proposal Title: Low-Cost Microwave Curing of Aerospace Composite Materials
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: There is a need for a low-cost, industrial electromagnetic heating system for curing composite materials. Our goal is to develop a physics simulation model with electromagnetic heating applicator which will predict and design production cure cycles for CFRP composite parts. The approach characterizes electrical and chemical material properties of CFRP composite at low microwave power and builds a physics software module for integration with commercial FEA. PSI will design and build an electromagnetic applicator that uses low-cost sources and can be installed in heritage autoclaves. This technology can improve cured mechanical properties, and reduce autoclave cure cycle time and energy expense.
POC: Brendan Nunan, bnunan@psicorp.com
NAICS: 541720, 541711, 541712

Company: Product Innovation and Engineering L.L.C. /St. James, MO
Topic: N221-021
Phase II Proposal Title: Modeling and Process Planning Tool for Hybrid Metal Additive/Subtractive Manufacturing
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: This project seeks to advance a framework by which the complex stress states produced by hybrid additive manufacturing (AM) / subtractive manufacturing (SM) processes can be addressed. The optimization algorithm begins with segmenting the model geometry into a set of hybrid features. We are defining a hybrid feature as geometry we can produce by 1 AM operation followed by 1 SM operation. Complex geometries can be accomplished by iterating the algorithm over a set of hybrid features. Predictions of the part material's residual stresses, internal temperature, and geometry are tracked within the path plan's data structure as the optimizer proceeds.
POC: Todd Sparks, toddesparks@mopine.com
NAICS: 541512, 332812, 332312

Company: SURVICE Engineering Company /Belcamp, MD
Topic: N231-047
Phase II Proposal Title: Composite Navy Propulsor Shaft Design Validation
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: The effort focuses on fabrication process quality/repeatability validation and model predictability in the design/manufacture of lightweight, robust propulsor shafts. Such structures must be capable of functioning in a high torque environment, be damage tolerant, exhibit environmental durability, be abrasion resistant, and exhibit compatibility with metallic components, for drive components on Naval platforms. The program includes generation of material property data, characterization of shaft laminate quality and repeatability, validation of design, verification of predictability of operational capabilities, and integration of shaft with metal components in the propulsor shaft assembly.
POC: Rick Luzetsky, rick.luzetsky@survice.com
NAICS: 541710, 541512, 541511, 541330

MATERIALS & MANUFACTURING PROCESSES *(continued)*

Company: TDA Research, Inc. /Golden, CO
Topic: N222-116
Phase II Proposal Title: Tunable, Repeatable, Calcium Lanthanum Sulfide Ceramic Powder Development
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: There is a need for a high purity commercial source of calcium lanthanum sulfide (CLS).Ceramics made from CLS have an unusually broad range of transmittance in the infrared (IR), as well as high mechanical strength and environmental durability. For these reasons, CLS is an ideal material for IR windows used in applications such as multispectral imaging. TDA has identified a new, efficient method to manufacture the CLS powder that will be less expensive than previous methods, better-suited for a large-scale manufacturing environment, and will produce consistently high purity, high quality material from batch to batch.
POC: Brady Clapsaddle, bclapsaddle@tda.com
NAICS: : 541715

Company: TDA Research, Inc. /Golden, CO
Topic: N231-012
Phase II Proposal Title: Technology Development Strategy for the Design of Passive and Semi-passive Underwater Acoustic Metamaterial Filters
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Aquatic sensor platforms are a key strategic element of anti-submarine warfare (ASW). As ship traffic increases and modern naval targets grow ever quieter, acoustic sensitivity needs to be improved to maintain an operational advantage. Metamaterials have recently demonstrated capabilities in passive and assisted underwater acoustic signal manipulation. They provide an attractive and economical solution to enhance sensor platform capabilities for the next generation of ASW. TDA has developed a comprehensive structural evolution strategy to address the challenges in designing and manufacturing passive and semi-passive underwater acoustic metamaterial filters (PUMAFS and SUMAFs).
POC: Girish Srinivas, gsrinivas@tda.com
NAICS: : 541715

Company: Triton Systems, Inc. /Chelmsford, MA
Topic: N231-076
Phase II Proposal Title: Electrically Conductive Self-Assembled Monolayer (SAM) Anti-Stiction Coating for Micro-Electromechanical Systems (MEMS)
SYSCOM: SSP
Showcase: STP Technical Information Exchange 2026
Abstract: This program develops a conformal, charge-dissipating, anti-stiction coating for Micro-Electromechanical Systems (MEMS) devices. Self-assembled monolayer (SAM) coatings are candidates because their surface-limited deposition avoids the accumulation of mass. Vapor-phase processing is a requirement for generating coverage even on surfaces that are non-line-of-sight. These are two requirements that generally trade off each other SAM coatings have been shown to reduce stiction-related failures for MEMS devices during fabrication and in operation. Triton Systems demonstrated a SAM coating that meets the hybrid structure needed for simultaneous charge dissipation and anti-stiction performance.
POC: John Lock, jlock@tritonsys.com
NAICS: 541712

MODELING AND SIMULATION TECHNOLOGY

Company: Combustion Research and Flow Technology, Inc. /Pipersville, PA
Topic: N23A-T003
Phase II Proposal Title: Advanced Physics Modeling for Gas Turbine Particulate Ingestion
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: CRAFT Tech has developed a Reactive Solids Tool which to interface with CFD codes to predict silicate particle behavior in high temperature combustor environments. The project will mature the Reactive Solids Tool to account for slag buildup on the gas flow path and heat transfer to the substrate wall. This effort uses material and chemical response of sand/ash in high-temperature environments along with algorithms accounting for time varying silicate material properties and adhesion characteristics. The Tool will perform CFD predictions for passage of solid particles through gas turbine engines and the potential for accumulation of solid particulate deposits throughout the engine.
POC: Michael O'Gara, mogara@craft-tech.com
NAICS: 541715

MODELING AND SIMULATION TECHNOLOGY *(continued)*

Company: Corvid Technologies, LLC /Mooresville, NC
Topic: N221-081
Phase II Proposal Title: Development of an Aerothermal Modeling and Simulation Code for Hypersonic Applications
SYSCOM: SSP
Showcase: Sea Air Space 2026
Abstract: Corvid and Leidos are partnering to create HAVOC (Hypersonic Aerothermostructural Vehicle-Oriented Coupling), an automated computational tool designed to analyze vehicle TPS (Thermal Protection Systems) through hypersonic trajectories. HAVOC employs high fidelity CFD and FEA solvers to capture the physics that define hypersonic flight. Aerodynamic heating at high speeds results in material temperature rise and Vehicle shape change. HAVOC defines aeroheating boundary conditions of a hypersonic trajectory to include automatically updated CFD and FEA grids that respond to the changing shape of the vehicle.
POC: Giovanni Salazar, giovanni.salazar@corvidtec.com
NAICS: Not Provided

Company: Crown Point Technologies, LLC /Columbia, MD
Topic: N221-077
Phase II Proposal Title: Semantic-Driven Data Integration Software Solution
SYSCOM: SSP
Showcase: SEA AIR SPACE 2026
Abstract: Crown Point Technologies presents a solution aimed at enhancing data interoperability and streamlining the integration of diverse data repositories. In this initiative, we envision a fully functional semantically-driven data integrator prototype. This prototype will integrate information from requirements management systems, system engineering tools, and product lifecycle management tools. By bridging these platforms, our solution seeks to substantially improve the efficiency and coherence of data management, analytics and decision-making within SSPs current digital engineering framework.
POC: Stephen Kahmann, stephen@crownpoint.tech
NAICS: 541511

Company: Design Interactive, Inc. /Orlando, FL
Topic: N221-029
Phase II Proposal Title: AMMO: Aide for Missile Maintenance Operations
SYSCOM: NAVSEA
Showcase: WEST 2026
Abstract: Design Interactive (DI) will continue development of Aide for Missile Maintenance Operations (AMMO), a secure system to connect existing Standard Missile (SM) manufacturer and NAVSEA data/software systems with specialized AI/ML components to empower SM maintenance decisions. AMMO will identify and quantify patterns in SM maintenance data to provide interactive tools to support decision-makers. DI will further develop and train AI/ML capabilities explore budget, labor, and readiness in user-defined scenarios and identify missiles prioritization for maintenance. AMMO will be a prototype connected to NAVSEA databases and user-facing architecture such as Missile Assessment and Readiness Suite.
POC: JoAnn Archer, joann.archer@designinteractive.net
NAICS: 541330, 541512, 541519, 541311

Company: Faraday Technology, Inc /Englewood, OH
Topic: N23A-T019
Phase II Proposal Title: Improved Electrochemical Machining of Next-Generation Alloys for Turbine Engine Components
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Faraday Technology will develop a software application providing electrochemical finite element modeling and computational fluid dynamics capability for electrochemical machining of turbine engine components. The application will perform automated optimization of the cathode tool shape to achieve a target part geometry. Faraday will develop the empirical data needed to guide the simulation for an Inconel 718 system. Use of this application will allow electrochemical machining firms to replace a significant number of upfront experimental iterations during the cathode tool development cycle. This will reduce the non-recurring engineering expenses associated with cathode tool design.
POC: Guillermo Colon Quintana, guillermocolon@faradaytechnology.com
NAICS: 54171

MODELING AND SIMULATION TECHNOLOGY *(continued)*

Company: Spectral Sciences, Inc. /Burlington, MA
Topic: N221-081
Phase II Proposal Title: Automated Full Trajectory Aero-Thermo-Mechanical Simulation Coupling for Hypersonic Flight
SYSCOM: SSP
Showcase: STP Technical Information Exchange 2026
Abstract: Prediction of the operating environment to design aero-thermo-mechanical loading capabilities of aeroshell materials will enable better vehicle capabilities over hypersonic flight trajectories. Spectral Sciences has a software plan that links aerothermal gas flow simulations for aero-thermo-mechanical simulations of hypersonic vehicle aeroshells. We will develop the prototype of the automated coupling software to expand capabilities and implement of aerodynamic and thermomechanical behaviors like transition to turbulence and thermostructural failure analysis. The prototype be tested against benchmark tests and with real flight cases as part of an overall validation and verification effort.
POC: Alexandra Woldman, awoldman@spectral.com
NAICS: Not Provided

SENSORS

Company: Advanced Cooling Technologies, Inc. /Lancaster, PA
Topic: N221-083
Phase II Proposal Title: Conformal Two-Phase Switch for Sensor Thermal Control
SYSCOM: SSP
Showcase: SEA AIR SPACE 2026
Abstract: A stable operating temperature is critical to many sensing systems. One approach is the use of passive variable conductance devices that modulate their thermal resistance in response to changes in temperature. ACT is developing a passive variable conductance device that can conform to a sensor of arbitrary shape. The device provides temperature stabilization, is compact, capable of operating in any orientation and can be designed for any sensor size and shape. A prototype device demonstrated a thermal turndown ratio of 11.5:1. This program will focus on improving the performance of the device, reducing the volume, and improving the fabrication process.
POC: Hessam Taherian, hessam.taherian@1-act.com
NAICS: 541690, 541710, 541330, 927110

Company: ADVIS /Caledonia, NY
Topic: N22A-T026
Phase II Proposal Title: Low-Cost, Low-Power Vibration Monitoring and Novelty Detector
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: This program will bring machine health and usage monitoring to Navy and Marine Corps assets. The solution integrates vibration sensing with signal acquisition and processing, artificial intelligence, data storage, and communications in a compact, low-cost, battery-powered device with an unattended service life of 3 years or greater. The device will monitor asset usage, detect and classify faults, and predict the remaining useful life of assets. Machine health monitoring (MHM) has the potential to be a game-changer, employing sensors and data analytics to monitor the critical equipment and detect potential failures before they occur to reduce downtime and extend the life of equipment.
POC: Mark Bocko, mbocko@rochester.rr.com
NAICS: 541710, 334413

Company: Agile RF Systems LLC /Berthoud, CO
Topic: N231-063
Phase II Proposal Title: Additive Manufactured Low-Loss Small-Size Low-Profile Conformal GRIN Lens in the K-Band
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: Agile RF Systems (ARS) and the University of Oklahoma proposes a compact, low-loss, conformal Gradient Index (GRIN) lens based on additive manufacturing (AM). Compact planar lenses require a high dielectric constant gradient. This is limited by the dielectric constants of standard AM materials. Our system is compact, conformally mountable to aircraft, and can achieve wide-angle scanning with reduced sidelobes. The new AM method will be developed and tested. A parallel effort will focus on developing the theory and design process for wide scanning, wideband GRIN Lens antennas to develop designs capable of conformal integration with small UAS.
POC: Philip Kelly, pkelly@agilerfsystems.com
NAICS: Not Provided

SENSORS *(continued)*

Company: EPIR, Inc. /Bolingbrook, IL
Topic: N231-065
Phase II Proposal Title: MWIR TPA Notch Filter
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: EPIR proposes to develop HgCdTe and InGaAs -based spectrally agile notch filters that autonomously attenuate pulses from an incoming MWIR laser threat while simultaneously transmitting the normal operation of the imaging system. These filters use two-photon absorption (TPA) nonlinear response of narrow bandgap semiconductor materials to attenuate high laser photon flux. The TPA notch filter assembly increases camera and imaging systems hostile beam protection capability and monitors of the electrical impedance of the filter. EPIR plans to design and fabricate a TPA notch filter to block laser threats with no restriction on acceptance angles, no moving parts, and no polarization sensitivity.
POC: Yong Chang, ychang@epirinc.com
NAICS: 334413

Company: GoHypersonic Inc. /Dayton, OH
Topic: N23A-T029
Phase II Proposal Title: Non-Intrusive Aerodynamic State Sensing for Hypersonic Flight Control
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Hypersonic flight conditions are affected by incoming air state. Analyzing these properties is critical to control vehicles. Hypersonic vehicle flight envelopes are challenging to measure with a single sensor. It is necessary to fuse data from sensor locations at various points on a vehicle and develop control algorithms which utilize this collected data to determine an accurate representation of vehicle state. We have developed a conceptual Flush Air Data Sensing (FADS) system. The objective of this proposed work is to fabricate and test a non-intrusive, airdata sensing system capable of producing reference information across a wide range of flight conditions.
POC: Mike Kurtz, mike.kurtz@gohypersonic.com
NAICS: 541330

Company: IXI Technology Electronic Warfare, LLC DBA IXI EW /Yorba Linda, CA
Topic: N22A-T021
Phase II Proposal Title: Affordable Stabilized Directional Antennas for Small Platforms
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: The Navy operates sensors and datalinks across unattended surface and undersea buoys, surface, undersea, and air vehicles. Most of these use low-gain omnidirectional RF antennas that must radiate in all directions to ensure coverage and data links are maintained. Higher-gain directional antennas provide improved range and LPD/LPI, but must be pointed towards their targets. To detect valley transitions and swell peaks, an on-board sensor must be used to ensure data is transmitted at the proper time. We will integrate COTS PNT sensor components with low-power processing to generate antenna control unit commands for a phased array antenna for enhanced range, LPD/LPI, and datalink reliability.
POC: Daniel Hyman, dan.hyman@ixitech.com
NAICS: 334511

Company: Nu-Trek /San Diego, CA
Topic: N231-027
Phase II Proposal Title: Low-cost, Low-SWaP, and High-Performance Uncooled Infrared Imager
SYSCOM: NAVAIR
Showcase: WEST 2026
Abstract: The Nu-Trek Team will be developing and demonstrating the Castanea 8 m pitch readout integrated circuit (ROIC), a key component in advanced, thermal, uncooled LWIR cameras. The Castanea ROIC is derived from Nu-Treks validated Chestnut 12 m pitch ROIC. Thermal cameras on the market today are biased and read out on a row-by-row basis. The Castanea ROIC will have full frame bias and read out circuits, and when used with high resistance bolometers, enables greater sensitivity, higher frame rates, and larger formats. This will provide the war fighter with a powerful low size, weight, and cost (SWaP/C) camera technology that is both highly effective and very economical.
POC: Miriam Rauch, miriam.rauch@nu-trek.com
NAICS: 541712

SENSORS *(continued)*

Company: Opterus Research and Development, Inc. /Loveland, CO
Topic: N221-072
Phase II Proposal Title: High Strain Composite Boom Deployed Volumetric Sonobuoy Array
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: The Navy needs compactible deployable structures for air-deployed canister sonobuoys. These systems must stow compactly within the confines of a A-type sonobuoy canister, deploy and position a volumetric array of sensor nodes. S sonobuoy systems are deployed from patrol aircraft or helicopters. Opterus proposes the High Strain Composite the (HSC) boom deployed volumetric array. The concept uses a stabilization weight to tension an array of sensors. Opterus will critically focus on prototype fabrication and test in relevant environments. The composite material systems will be evaluated and vetted for performance in an undersea, conductive fluid that creates a highly corrosive environment.
POC: William Rapagnani, wrapagnani@opterusrd.com
NAICS: Not Provided

Company: Orbital Micro Systems, Inc /Boulder, CO
Topic: N231-066
Phase II Proposal Title: SPECTral Radiative Transfer Unified Model (SPECTRUM)
SYSCOM: ONR
Showcase: WEST 2026
Abstract: Orbital Micro Systems, Inc. (OMS) will build SPECTral Radiative transfer Unified Model (SPECTRUM), a development platform using multiple Radiative Transfer Models (RTMs) from ultraviolet (UV) to radio frequencies to aid in instrument and algorithm development. Our objectives are: Build SPECTRUM core infrastructure to run multiple RTMs and algorithms. Populate SPECTRUM with multiple RTMs and algorithms. Create a workbench of tools to support instrument and algorithm development. SPECTRUM will consist of five systems: the RTM library, the translator, the workflow, the workbench, and the constituent repository. The RTM library will contain 14 RTMs and associated retrieval algorithms.
POC: Kevin Schaefer, kevin.schaefer@orbitalmicro.com
NAICS: Not Provided

Company: Scientific Systems Company, Inc /Burlington, MA
Topic: N111-025
Phase II Proposal Title: SAFEPASS: Safe Encounter Resolution using Passive Sensing
SYSCOM: ONR
Showcase: SEA AIR SPACE 2026
Abstract: Range estimation for marine vessels is important to unmanned surface vehicles for COLREGS-compliant navigation and collision prevention. When operating in EMCON, it may be desired to estimate distance using a monocular camera, given the limited effective range of stereo camera systems. SAFEPASS provides passive ranging, tracking, and obstacle/collision avoidance to an autonomous USV with the addition of a low-cost, COTS camera system. SAFEPASS performs passive ranging with a combination of Target Motion Analysis, Rate of Growth, and Stadimeter techniques. Closed-loop perception enables the system to produce maneuvers while maintaining mission objectives and safe separation.
POC: Brian Free, Brian.Free@ssci.com
NAICS: 541330, 541710, 541512, 541511

Company: Secure Planet, Inc. /Arlington, VA
Topic: SOCOM163-003
Phase II Proposal Title: Advanced Tactical Facial Recognition at a Distance Technology
SYSCOM: MCSC
Showcase: STP Technical Information Exchange 2026
Abstract: There is a need to quickly identify people at long range. For tactical applications, solutions must be compact, lightweight, and power efficient. Challenges are: 1) obtaining face image resolution at long range, 2) removal of image distortion, and 3) accurately matching facial images obtained from non-ideal poses. We will conduct a feasibility study to determine if current technologies are adequate to provide biometric identification of persons at range. We will identify optical components and compact computing hardware to satisfy requirements. These will be integrated with image correction and facial matching algorithms to produce prototype systems tested in realistic operating conditions.
POC: Ivan Quinn, ivanminerquinn@gmail.com
NAICS: Not Provided

SENSORS *(continued)*

Company: SK Infrared LLC /Dublin, OH
Topic: N22A-T020
Phase II Proposal Title: 3D Multimodal Imaging with LiDAR-like Engineered Sensor (3D-Miles)
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: SK Infrared is proposing to develop inexpensive LiDAR-like 3D imaging sensors with high depth and vertical resolution and a large field of view. The 3D Multimodal Imaging with LiDAR-like Engineered Sensor (3D-MILES) will be a novel product that can be used for reliable object detection at medium to long ranges. The proposed effort is an extremely challenging venture and requires the systematic synergistic development of a hybrid platform that integrates state-of the-art machine learning and computer vision algorithms with COTS sensors and computing hardware including active illumination technologies and high-speed electronics.
POC: Adam Kable, adam@skinfrared.com
NAICS: 541330, 541712

Company: Surface Optics Corporation /San Diego, CA
Topic: N231-020
Phase II Proposal Title: Detection and Tracking of Hypersonic Missiles Using EO/IR Sensors
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: The Hypersonic Spectral Imaging Detection Sensor (HySIDS) will develop a SWIR-MWIR/LWIR and UV spectral imager and processor with algorithms for detection, identification and tracking of hypersonic missiles. Simultaneously sampling 32 spectral bands over a two-dimensional field, the system will detect and track hypersonic missiles and glide vehicles at long range. Through design, manufacture, and test, the program will develop an ultraviolet and infrared full-motion video spectral imager appropriate for all-weather day/night detection of hypersonic missiles. The system includes a compact spectral imager plus the hyperspectral data processor.
POC: Mark Dombrowski, markd@surfaceoptics.com
NAICS:

Company: Texas Research Institute Austin, Inc. /Austin, TX
Topic: N211-062
Phase II Proposal Title: Nondestructive Detection of Flaws through Thick Polymers using Electromagnetic Imaging Technologies
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: TRI Austin, Iowa State University, and AVID R&D propose to develop a real-time, high resolution, microwave frequency imaging system for the inspection of the surface of a metallic substrate under thick polymer coatings. The imaging system will use synthetic aperture radar (SAR) imaging algorithms to generate high resolution images from raw microwave inspection data. Polymer specimens and metal substrate specimens with surface defects will be fabricated to test the imaging system during development. The team plans to test the system on several U.S. Navy targets of interest before delivering a fully functional prototype system to the Navy at the end of the Phase II Option II period.
POC: Vince Newton, VNewton@tri-austin.com
NAICS: 541710

Company: Triton Systems, Inc. /Chelmsford, MA
Topic: N221-083
Phase II Proposal Title: Variable Conductance Thermal Management Technology
SYSCOM: SSP
Showcase: SEA AIR SPACE 2026
Abstract: A technology that dynamically adjusts the thermal conductivity (variable conductance) between a sensor and its environment to assist in maintaining a stable temperature with minimal power draw is desired. Solid materials are characterized by nearly constant thermal conductivity and have nearly constant thermal conductance. An ideal interface material will have variable conductance that conducts heat well when the device is cooled and conducts poorly when heat loss from the device is minimized. Thermal switches can effectively mimic continuously variable conductance, but at the expense of continuous power drawing actuation. Triton systems proposes to develop a new material.
POC: Matt Davis, mdavis@tritonsys.com
NAICS: 541712

SENSORS *(continued)*

Company: Triton Systems, Inc. /Chelmsford, MA
Topic: N23A-T021
Phase II Proposal Title: Autonomous, Long-Duration, Directional Ambient Sound Sensor
SYSCOM: ONR
Showcase: STP Technical Information Exchange 2026
Abstract: Triton Systems is developing an autonomous, long-duration, directional ambient sound sensing system capable of being integrated into a variety of platforms including floats, gliders, and ocean observation buoys. It will include onboard processing to provide sound intensity levels as a function of frequency and direction (both horizontal and vertical) to establish the background soundscape in the environment. The system will also include event detection algorithms to flag transient events of interest. The system will scale data output methods to match the platform communications bandwidth.
POC: Keith Gilbert, kgilbert@tritonsys.com
NAICS: 541712

SPACE

Company: TrustPoint, Inc. /Herndon, VA
Topic: N231-023
Phase II Proposal Title: Resilient GPS-Independent Navigation for Denied Environments
SYSCOM: NAVAIR
Showcase: WEST 2026
Abstract: TrustPoint will build on Alternative PNT (APNT) Architecture Assessment, and APNT Performance Assessment, and prototype a Commercial Off-the-Shelf (COTS) TrustPoint APNT Receiver and Multi-Element C-band Receive Antenna. The Prototype Receiver will be capable of forming GPS-independent time and positioning solutions using TrustPoint's C-band APNT Service, and will interface with the Embedded Global Positioning System (GPS) Inertial Navigation System (INS) Modernized (EGI-M) system or other DON-directed system to provide continuity of PNT services in the event of GPS jamming and/or spoofing in L-band.
POC: Christopher DeMay, chris@trustpointgps.com
NAICS: Not Provided

SUSTAINMENT

Company: Boston Engineering Corporation /Waltham, MA
Topic: N231-031
Phase II Proposal Title: Underwater Cavitating Jetting Antifouling System
SYSCOM: NAVSEA
Showcase: SEA AIR SPACE 2026
Abstract: Boston Engineering will redesign a commercial robotic system ruggedization, design for manufacturing, cybersecurity, and system certification. One system could operate above and below water with minimum changes. Advances for the underwater variant will include packaging design appropriate for underwater operation, specific navigation capability for boat and ship hulls, and the automation required to deliver the desired cavitation jetting to remove biofouling. The envisioned robotic delivery technology uses compliant tracks enabling the ability to traverse non-smooth surfaces and most protrusions typical on the hull surface, including slopes (e.g., conformal arrays) and ridges.
POC: Mark Smithers, msmithers@boston-engineering.com
NAICS: 541710, 541511, 541330

Company: Global Strategic Solutions LLC /McLean, VA
Topic: N10A-T009
Phase II Proposal Title: Dynamic Physical/Data-Driven Models for System-Level Prognostics and \ Health Management (converting to SBIR)
SYSCOM: NAVAIR
Showcase: WEST 2026
Abstract: This effort will advance the electronics prognostics and health management (PHM) toolset and development framework, add components to support multiple aircraft domains, and integrate relevant tools and research. The objective is to develop a Minimum Viable Product toward a common, standards-based, modeling environment to support development of data-driven diagnostics and prognostics for the aircraft automated ground support system. The modeling environment enables support of automatic test system (ATS) and PHM capability development and maturity level enhancement processes. This approach supports a legacy platform, and moves toward a standardized open system to support new platforms.
POC: Charles Godwin, charlesgodwin@gssllc.net
NAICS: Not Provided

SUSTAINMENT *(continued)*

Company: Shipcom Federal Solutions, LLC /Houston, TX
Topic: N201-X02
Phase II Proposal Title: Semantic Modelling for Lifecyle Mission Capability
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Lifecyle system product gaps, stakeholder miscommunication, delays in fleet response and inefficient modeling are major contributors to current system mission reliability and affordability. Shipcom proposes an AI-enabled semantic modeling solution that will capture the lifecycle ontology definition by leveraging Protg or other OWL tools. The primary objective of this effort is: Provide the framework and toolset to capture and utilize a products Lifecycle System design ontology. Secondary objectives are: Apply AI/ML technologies to utilize the ontology to assess the product system reliability design and performance opportunities enhancing overall system capability.
POC: Kelly Faulkner, kfaulkner@shipcom.ai
NAICS: Not Provided

WEAPONS TECHNOLOGIES

Company: Aerodynamic Technologies, LLC /Brier, WA
Topic: N20A-T022
Phase II Proposal Title: Development of High-resolution Global Wall Shear Stress Measurement Technique for use in Hypersonic Flow Studies
SYSCOM: ONR
Showcase: WEST 2026
Abstract: Aerodynamic Technologies is developing a new method for instantaneous measurement of shear stress of aerodynamic surfaces. Shear stress is one fundamental force aerodynamicists aim to determine for all aerodynamic surfaces. Traditionally, a large number of point-measurement sensors, a process that is time consuming and expensive. Our approach will enhance the ability to measure drag locally, globally and instantaneously, study flow physics, and develop accurate CFD methods for wall shear stress. This will provide a global and non-intrusive method for measuring wall shear stress on hypersonic surfaces. This will serve a wide range of applications toward advancing the field of hypersonics.
POC: Yuchi Chu, yuchichu@aerodynamic-technologies.com
NAICS: Not Provided

Company: NP Photonics, Inc. /Tucson, AZ
Topic: N221-041
Phase II Proposal Title: Compact High Power Mid-Wave Infrared Laser System
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: NP Photonics proposes to develop a compact high-power mid-wave infrared laser system by taking advantage of its capability and experience in mid-wave infrared fibers and fiber lasers. The proposed mid-wave infrared laser system has the advantages of high-efficiency, high power scalability, high beam quality, and broad spectral coverage. In the Phase I program, the feasibility of developing a high-power mid-wave infrared laser system based on NP Photonics' unique optical fibers was demonstrated. In Phase II, the focus will be on the development of high-power mid-wave infrared lasers and a 100-W laser prototype covering 3.5-4.1 micron and 4.6-4.9 micron sub-bands.
POC: Xiushan Zhu, xzhu@npphotonics.com
NAICS: 335921

Company: Penta Research Inc. /Huntsville, AL
Topic: N231-030
Phase II Proposal Title: An Innovative Approach to Leverage System Safety MBSE Model Information Using AI/ML
SYSCOM: NAVSEA
Showcase: STP Technical Information Exchange 2026
Abstract: Penta plans to expand the MBSE model and improve the efficiency of the Navy munition and missile system safety process. The team will focus on using AI/ML techniques to extract requirements and place those into the MBSE model. The team will also focus on using the same AI/ML techniques to take System of Interest data and import that information into the MBSE model. Penta will expand the model and create traceabilities for additional requirements and test data and will implement AI/ML techniques to vectorize and import standardized requirements for the munition and missile system safety process.
POC: Stephen Hayden, stephen.hayden@penta-inc.com
NAICS: 541330

WEAPONS TECHNOLOGIES *(continued)*

Company: Radiation Monitoring Devices, Inc. /Watertown, MA
Topic: N231-078
Phase II Proposal Title: Phase Change Material Based Phase Trimming for Integrated Photonics
SYSCOM: SSP
Showcase: WEST 2026
Abstract: Silicon-on-insulator (SOI) is a preferred platform for fabricating photonic integrated circuits (PICs) due to its favorable properties. However, the high refractive index contrast in SOI waveguides makes silicon photonic circuits highly susceptible to fabrication imperfections, where minor variations in dimensions can induce phase errors. These errors are particularly critical in applications such as waveguide optical gyroscopes, where precise control is essential for accurate sensing. RMD Inc. is developing and evaluating the design, fabrication, and manufacturability of PICs featuring chalcogenide phase-change material (PCM)-integrated waveguides for phase trimming.
POC: Mary Abud, mabud@rmdinc.com
NAICS: 334413, 541712, 541711

Company: SpaceWorks Enterprises, Inc. (SEI) /Atlanta, GA
Topic: N231-006
Phase II Proposal Title: Next Generation Toolset for Weapons Separation Evaluation
SYSCOM: NAVAIR
Showcase: SEA AIR SPACE 2026
Abstract: Air-launch weapon system store separation dynamics need to be fully characterized to ensure safety and weapon controllability during the separation phase. The current 6-DOF weapon separation tools used by the Store Separation Branch are NAVSEP and FLIP. These legacy tools lack commercial-grade software development, documentation, support, and upkeep, nor can they take full advantage of modern computational capabilities or easily integrate into modern workflows. SpaceWorks proposes to develop a new Aircraft Store Separation Evaluation Toolset (ASSET). This toolset will be a commercial-grade software product with thorough documentation, ongoing maintenance, and technical support.
POC: Ami Patel, ami.patel@spaceworks.aero
NAICS: Not Provided

Company: TDA Research, Inc. /Golden, CO
Topic: N211-026
Phase II Proposal Title: Reactive Boron Fuel for Energetic Applications
SYSCOM: NAVAIR
Showcase: STP Technical Information Exchange 2026
Abstract: Boron has very high volumetric combustion heat, yet because it is usually used as a metal powder its use as a combustion fuel is hampered by various factors that inhibit its complete combustion, including oxide passivation. Current methods to treat and alter boron and boron-based materials have not yet overcome these issues. TDA Research is developing novel energetic molecular boron materials for use as combustion-enhancing additives to solid and liquid fuel formulations that are critical to Navy propulsion applications. Our new materials will solve the issues with incomplete boron combustion using innovative strategies to overcome the energetic energy trap issues.
POC: Robert Bolskar, bolskar@tda.com
NAICS: Not Provided

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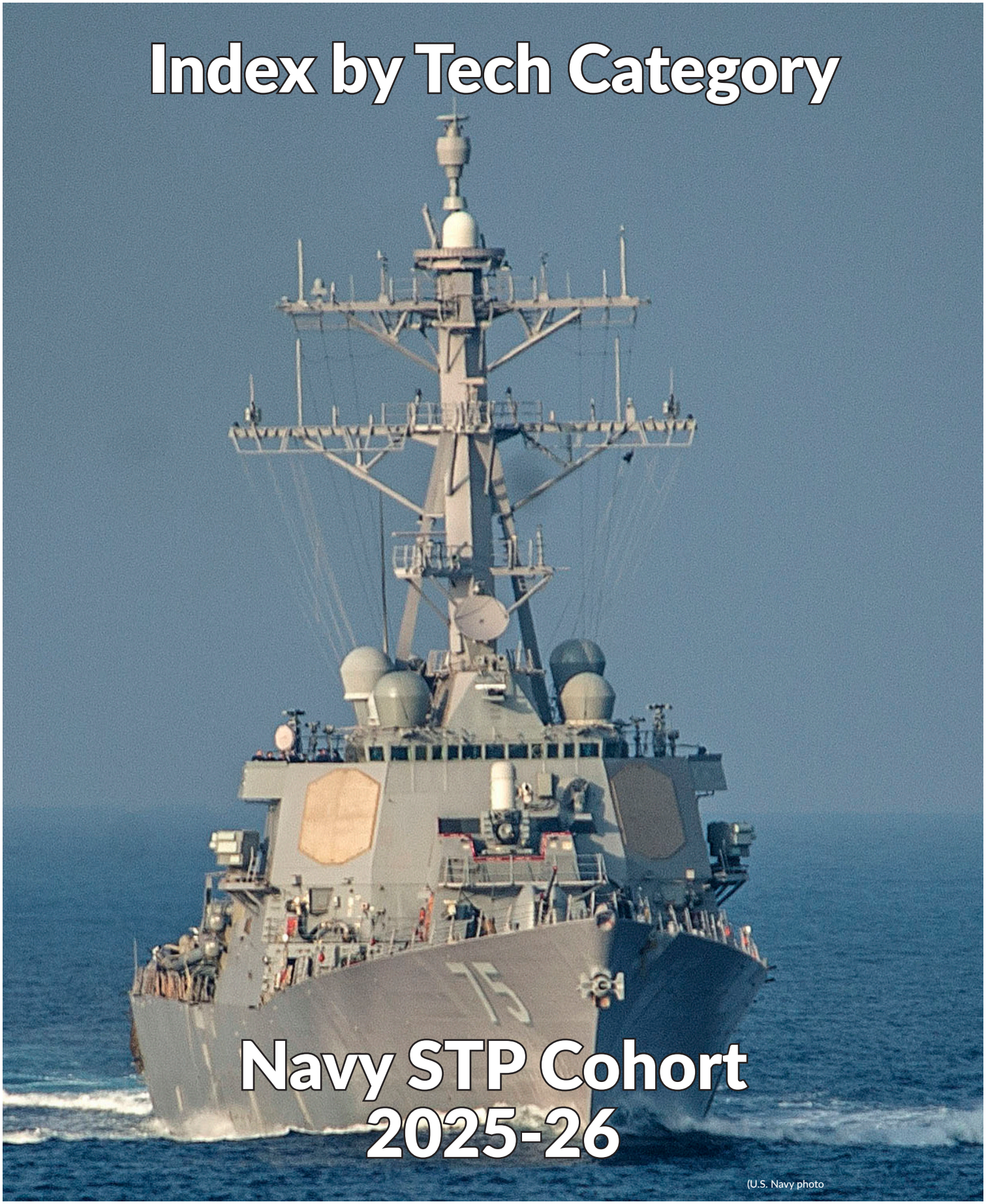

Navy STP Cohort 2025-26

(U.S. Navy photo

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